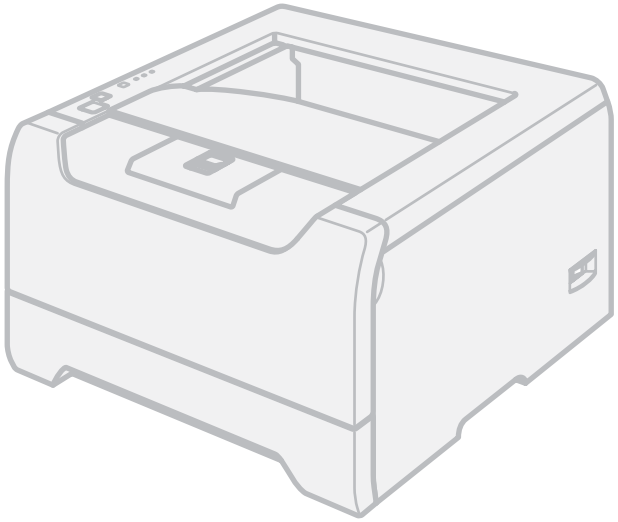
Brother Laser Printer

USER'S GUIDE

HL-5240
HL-5250DN



For visually-impaired users

You can read this manual with Screen Reader 'text-to-speech' software.

You must set up the hardware and install the driver before you can use the printer.

Please use the Quick Setup Guide to set up the printer. You can find a printed copy in the box.

Please read this User's Guide thoroughly before you use the printer. Keep the CD-ROM in a convenient place so you can use it quickly if you need to. You can also read the User's Guide in HTML format by visiting our web site at http://solutions.brother.com or accessing it from the CD-ROM directly.

Please visit us at http://solutions.brother.com where you can get product support, the latest driver updates and utilities, and answers to frequently asked questions (FAQs) and technical questions.

Version 0
EN-US_AS

Using this guide

Symbols used in this guide

We use the following icons throughout this User's Guide:

Warnings tell you what to do to prevent possible personal injury.

Electrical Hazard icons alert you to a possible electrical shock.

Hot Surface icons warn you not to touch machine parts that are hot.

Cautions specify procedures you must follow or avoid to prevent possible damage to the printer or other objects.

Improper Setup icons alert you to devices and operations that are not compatible with the printer.

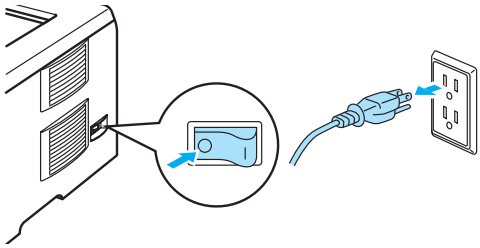
Notes tell you how you should respond to a situation that may arise or give tips about how the operation works with other features.

Safety precautions

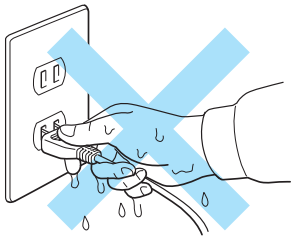
To use the printer safely

WARNING

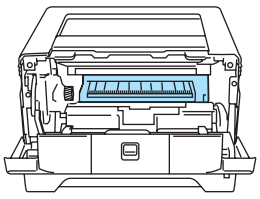
There are high voltage electrodes inside the printer. Before you clean the inside of the printer, make sure that you have turned off the power switch and unplugged the printer from the AC power outlet.



DO NOT handle the plug with wet hands. Doing this might cause an electrical shock.

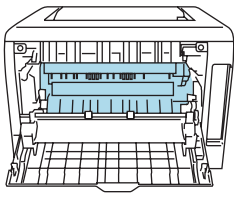


After you have just used the printer, some internal parts of the printer will be extremely hot. When you open the front or back cover of the printer, DO NOT touch the shaded parts shown in the illustration.



Inside the printer

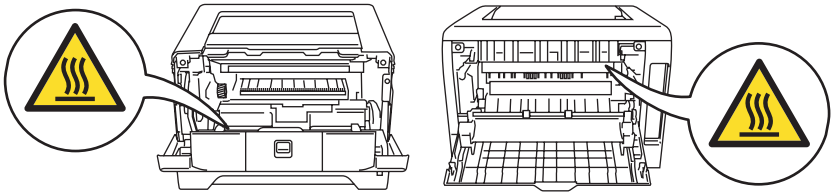
(Front View)



Open the back cover

(Back View)

DO NOT remove or damage the caution labels located on or around the fuser.



DO NOT use a vacuum cleaner to clean up scattered toner. Doing this might cause the toner dust to ignite inside the vacuum cleaner, potentially starting a fire. Carefully clean the toner dust with a dry, lint-free cloth and dispose of it according to local regulations.

DO NOT use flammable substances near the printer. Doing this might cause a fire or electrical shock.

CAUTION

Cleaning the outside of the printer:

- Make sure that you have unplugged the printer from the AC power outlet.
- Use neutral detergents. Cleaning with volatile liquids such as thinner or benzine will damage the outside surface of the printer.
- DO NOT use cleaning materials that contain ammonia.

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Shipment of the Printer

If for any reason you must ship your printer, carefully package the printer to avoid any damage during transit. We recommend that you save and use the original packaging. The printer should also be adequately insured with the carrier.

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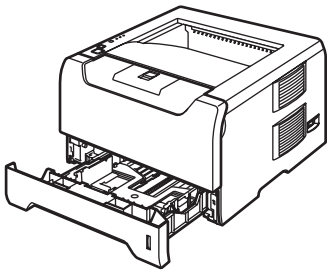
1 About this Printer

What is in the box?

When you unpack the printer, make sure that you have all of the following parts.

<table>
<tr><td colspan="4"> 
Printer</td></tr>
<tr><td>
CD-ROM</td><td>
Quick Setup Guide</td><td>
Drum unit and toner cartridge assembly</td><td>
AC power cord</td></tr>
</table>

Interface cable

An interface cable is not a standard accessory. Buy the proper interface cable for the interface you want to use (USB, parallel or network).

- USB cable

  Do not use a USB interface cable that is longer than 6 feet (2.0 meters).

  Do not connect the USB cable to a non-powered hub or a Macintosh® keyboard.

  Make sure that you connect it to the USB connector of your PC.

  USB is not supported under Windows® 95 or Windows NT® 4.0.

- Parallel interface

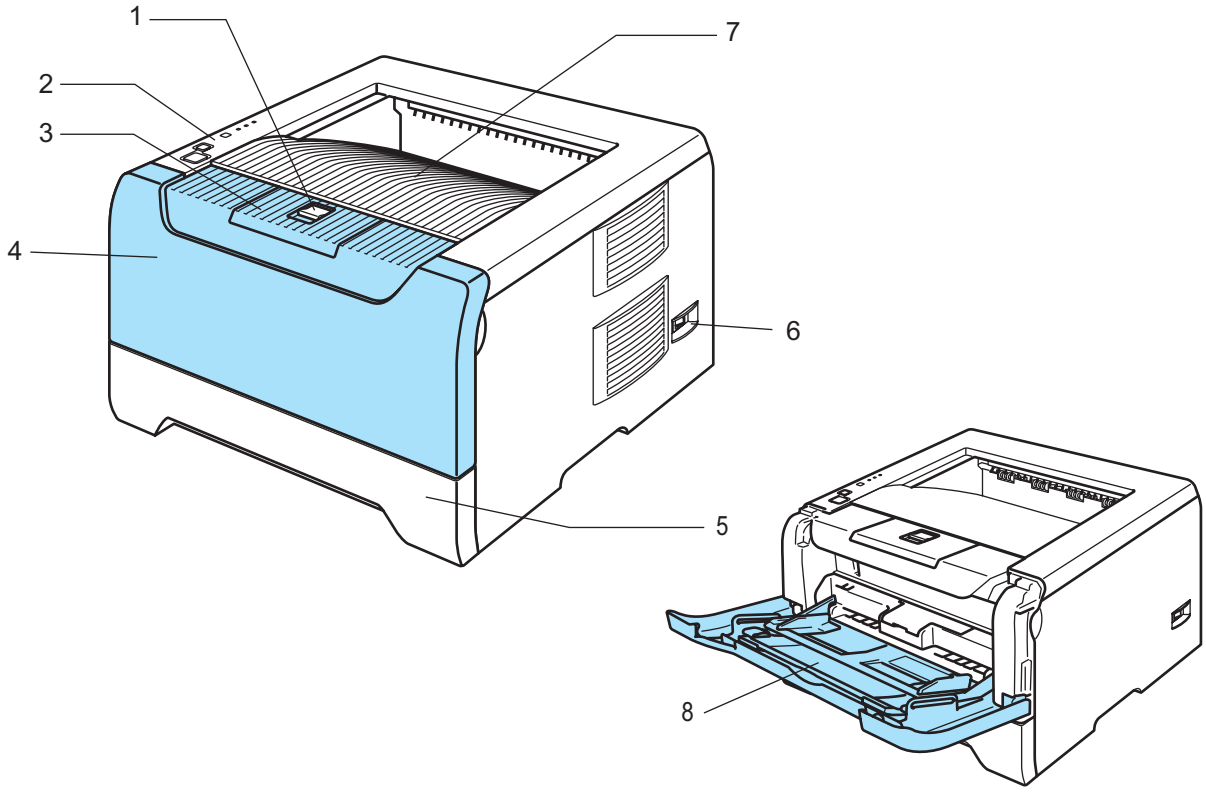
  Do not use a parallel interface cable that is longer than 6 feet (2.0 meters).

  Use a shielded interface cable that is IEEE 1284-compliant.

- Network cable (For HL-5250DN)

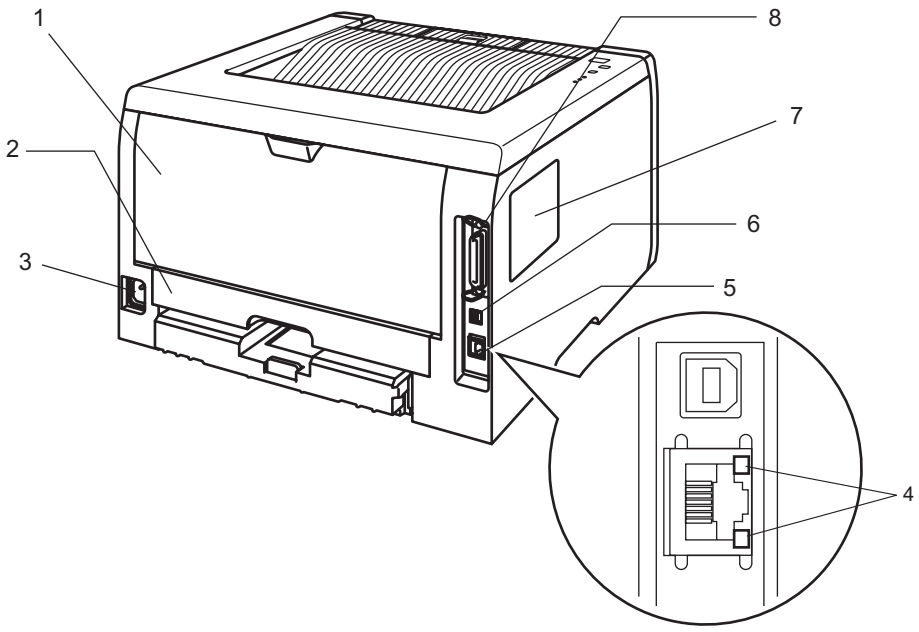
  Use a straight-through Category5 (or greater) twisted-pair cable for 10BASE-T or 100BASE-TX Fast Ethernet Network.

Front view



1 Front cover release button
2 Control panel
3 Face-down output tray support flap (support flap)
4 Front cover
5 Paper tray
6 Power switch
7 Face-down output tray
8 Multi-purpose Tray (MP Tray)

Back view



1 Back cover
2 Duplex Tray (For HL-5250DN)
3 AC power connector
4 HL-5250DN: Network status LEDs (Light Emitting Diodes)
5 HL-5250DN: 10/100BASE-TX port
6 USB interface connector
7 DIMM cover
8 Parallel interface connector

Note

The printer illustration is based on HL-5250DN.

Positioning the printer

Read the following before you use the printer.

Power supply

Use the printer within the recommended power range.

Power source:	USA and Canada:	AC 110 to 120 V, 50/60 Hz
	Europe and Australia:	AC 220 to 240 V, 50/60 Hz

The power cord, including extensions, should be no longer than 5 meters (16.5 feet).

Do not share the same power circuit with other high-power appliances, such as an air conditioner, copier, shredder and so on. If you cannot avoid using the printer with these appliances, we recommend that you use a voltage transformer or a high-frequency noise filter.

Use a voltage regulator if the power source is not stable.

Environment

- Put your printer on a flat, stable surface such as a desk that is free of vibration and shocks.
- Put the printer near an AC power outlet, so that it can be easily unplugged from the AC power outlet if there is an emergency.
- Only use the printer within the following ranges of temperature and humidity:

  Temperature: 10 °C to 32.5 °C (50 °F to 90.5 °F)

  Humidity: 20% to 80% (without condensation)
- Use the printer in a well-ventilated room.
- DO NOT put the printer where the ventilation hole of the printer is blocked. Keep a gap of roughly 100 mm (4 in.) between the ventilation hole and the wall.
- DO NOT expose the printer to direct sunlight, excessive heat, moisture, or dust.
- DO NOT put the printer near devices that contain magnets or produce magnetic fields.
- DO NOT expose the printer to open/naked flames or salty or corrosive gasses.
- DO NOT put objects on top of the printer.
- DO NOT put the printer near heaters, air conditioners, water, chemicals or refrigerators.
- Keep the printer horizontal when you carry it.

2 Printing Methods

About paper

Type and size of paper

The printer loads paper from the installed paper tray or the multi-purpose tray.

The names for the paper trays in the printer driver and this guide are as follows:

Paper tray	**Tray 1**
Multi-purpose tray	**MP Tray**
Optional lower tray unit	**Tray 2 / Tray 3**
Duplex tray for automatic duplex printing (For HL-5250DN)	**DX**

When looking at this page on the CD-ROM, you can jump to the page for each printing method by clicking ⓘ in the table.

Media type	Tray 1	Tray 2/3	MP Tray	DX	Choose the media type from the printer driver
Plain paper 75 g/m^2 to 105 g/m^2 (20 to 28 lb)	ⓘ	ⓘ	ⓘ	ⓘ	**Plain Paper**
Recycled paper	ⓘ	ⓘ	ⓘ	ⓘ	**Recycled Paper**
Bond paper Rough paper– 60 g/m^2 to 161 g/m^2 (16 to 43 lb)	ⓘ 60 g/m^2 to 105 g/m^2 (16 to 28 lb)	ⓘ 60 g/m^2 to 105 g/m^2 (16 to 28 lb)	ⓘ 60 g/m^2 to 161 g/m^2 (16 to 43 lb)		**Bond Paper**
Thin paper 60 g/m^2 to 75 g/m^2 (16 to 20 lb)	ⓘ	ⓘ	ⓘ	ⓘ	**Thin Paper**
Thick paper 105 g/m^2 to 161 g/m^2 (28 to 43 lb)			ⓘ		**Thick Paper** or **Thicker Paper**
Transparency	ⓘ Up to 10 sheets A4 or Letter		ⓘ Up to 10 sheets A4 or Letter		**Transparencies**
Labels			ⓘ A4 or Letter		**Thicker Paper**
Envelopes			ⓘ		**Envelopes** **Env. Thin** **Env. Thick**

	MP Tray	Tray 1	Tray 2, Tray 3	DX
Paper size	Width: 69.9 to 215.9 mm (2.75 to 8.5 in.) Length: 116 to 406.4 mm (4.57 to 16 in.)	A4, Letter, Legal [1], B5 (ISO), Executive, A5, A6, B6 (ISO)	A4, Letter, Legal [1], B5 (ISO), Executive, A5, B6 (ISO)	A4, Letter, Legal [1]
Number of sheets (80 g/m^2 to 21 lb)	50 sheets	250 sheets	250 sheets	

[1] Legal size paper is not available in some regions outside the USA and Canada.

Recommended paper

	Europe	USA
Plain paper	Xerox Premier 80 g/m^2 Xerox Business 80 g/m^2 M-real DATACOPY 80 g/m^2	Xerox 4200DP 20 lb Hammermill Laser Paper 24 lb
Recycled paper	Xerox Recycled Supreme 80 g/m^2	N/A
Transparency	3M CG3300	3M CG3300
Labels	Avery laser label L7163	Avery laser label #5160

- Before you buy a lot of paper, test a small quantity to make sure that the paper is suitable.
- Use paper that is made for plain-paper copying.
- Use paper that is 75 to 90 g/m^2 (20 to 24 lb).
- Use neutral paper. Do not use acidic or alkaline paper.
- Use long-grain paper.
- Use paper with a moisture content of approximately 5%.
- This printer can use recycled paper that meets DIN 19309 specifications.

CAUTION

DO NOT use ink jet paper because it may cause a paper jam or damage your printer.

Note

If you use paper that is not recommended, a paper jam or misfeed may occur in the printer.

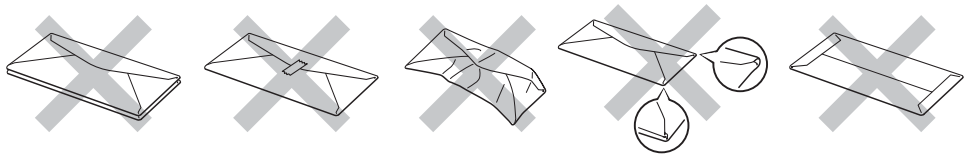
To help you choose which paper to use with this printer, see *Important information for choosing your paper* on page A-6.

Types of envelopes

Most envelopes will be suitable for your printer. However, some envelopes may have feed and print quality problems due to the way they have been made. A suitable envelope should have edges with straight, well-creased folds and the leading edge should not be thicker than two pieces of paper. The envelope should lie flat and not be of baggy or flimsy construction. You should buy quality envelopes from a supplier who understands that you will be using the envelopes in a laser printer. Before you print a lot of envelopes, test one to make sure that the print results are what you want.

Brother does not recommend a particular envelope because envelope manufacturers may change the envelope specifications. You are responsible for the quality and performance of the envelopes you use.

- Do not use damaged, curled, wrinkled, irregularly shaped, extremely shiny or textured envelopes.
- Do not use envelopes with clasps, snaps, tie strings, self-adhesive components, windows, holes, cutouts or perforations.
- Do not use envelopes that are of a baggy construction, not sharply creased, embossed (have raised writing on them) or pre-printed on the inside.
- Do not use envelopes that were previously printed by a laser printer.
- Do not use envelopes that cannot be arranged when put in a pile.
- Do not use envelopes that are made of paper that weighs more than the paper weight specifications for the printer.
- Do not use envelopes that have been badly made, with edges that are not straight or consistently square.



If you use any of the types of envelopes listed above, they may damage your printer. This damage is not covered under any Brother warranty or service agreement.

Note

- Do not put different types of paper in the paper tray at the same time because it may cause paper jams or misfeeds.
- Do not print envelopes using duplex printing.
- For proper printing, you must choose the same paper size from your application as the paper in the tray.

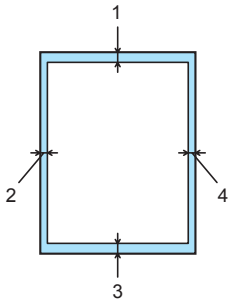
Printable area

When using PCL (standard driver) emulation, the edges of the paper that cannot be printed on are shown in the tables below.

Note

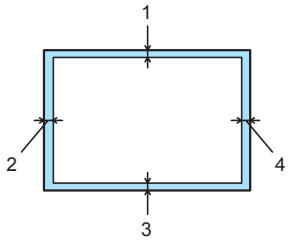
When using BR-Script emulation, the edges of the paper that cannot be printed on are 4.32 mm (0.17 in.).

Portrait



	A4	Letter	Legal	B5 (ISO)	Executive	A5	A6	B6
1	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)
2	6.01 mm (0.24 in.)	6.35 mm (0.25 in.)	6.35 mm (0.25 in.)	6.01 mm (0.24 in.)	6.35 mm (0.25 in.)	6.01 mm (0.24 in.)	6.01 mm (0.24 in.)	6.01 mm (0.24 in.)
3	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)
4	6.01 mm (0.24 in.)	6.35 mm (0.25 in.)	6.35 mm (0.25 in.)	6.01 mm (0.24 in.)	6.35 mm (0.25 in.)	6.01 mm (0.24 in.)	6.01 mm (0.24 in.)	6.01 mm (0.24 in.)

Landscape



	A4	Letter	Legal	B5 (ISO)	Executive	A5	A6	B6
1	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)
2	5.0 mm (0.19 in.)	5.08 mm (0.2 in.)	5.08 mm (0.2 in.)	5.0 mm (0.19 in.)	5.08 mm (0.2 in.)	5.0 mm (0.19 in.)	5.0 mm (0.19 in.)	5.0 mm (0.19 in.)
3	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)	4.23 mm (0.16 in.)
4	5.0 mm (0.19 in.)	5.08 mm (0.2 in.)	5.08 mm (0.2 in.)	5.0 mm (0.19 in.)	5.08 mm (0.2 in.)	5.0 mm (0.19 in.)	5.0 mm (0.19 in.)	5.0 mm (0.19 in.)

Printing methods

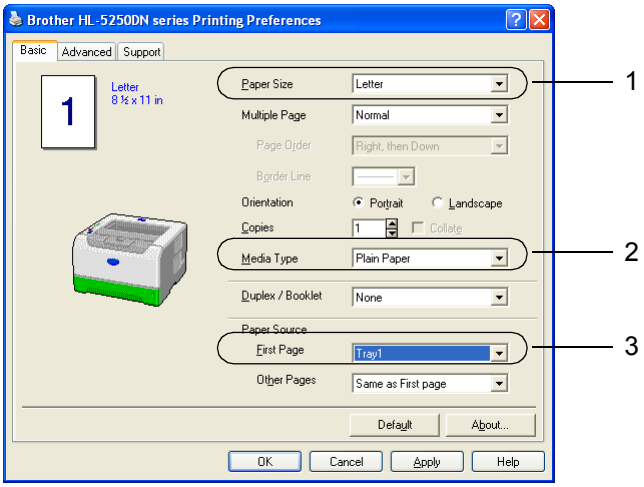
Printing on plain paper, bond paper and transparencies

Printing on plain paper, bond paper or transparencies from Tray 1, 2 or 3

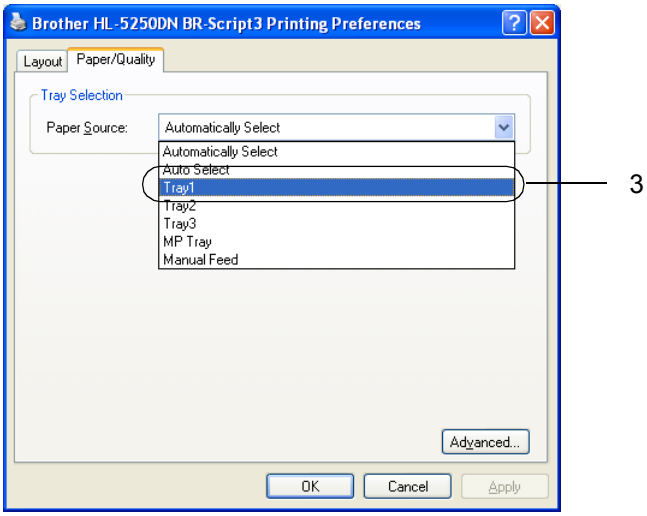
For the proper paper to use, see *About paper* on page 2-1.

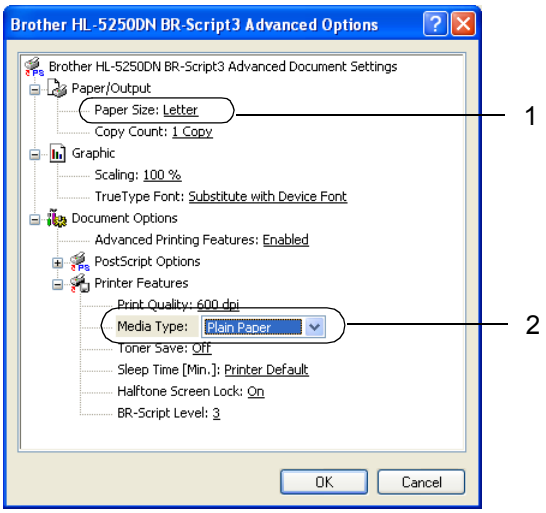
1. Choose the following from the printer driver:
   Paper Size .....(1)
   Media Type .....(2)
   Paper Source .....(3)
   and any other settings.

■ **Windows printer driver**

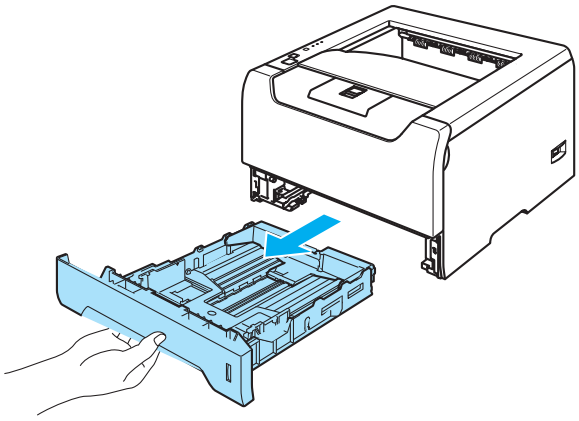


■ **BR-Script printer driver**

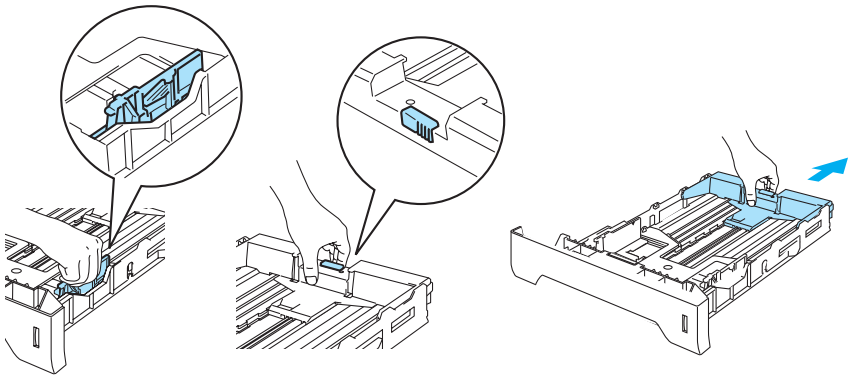




2 Pull the paper tray completely out of the printer.

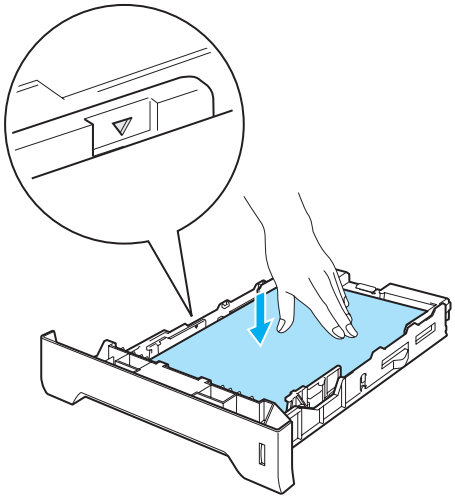


3 While pressing the blue paper-guide release lever, slide the paper guides to fit the paper size. Make sure that the guides are firmly in the slots. For legal size paper [1], press in the paper-guide release lever and pull out the back of the paper tray.



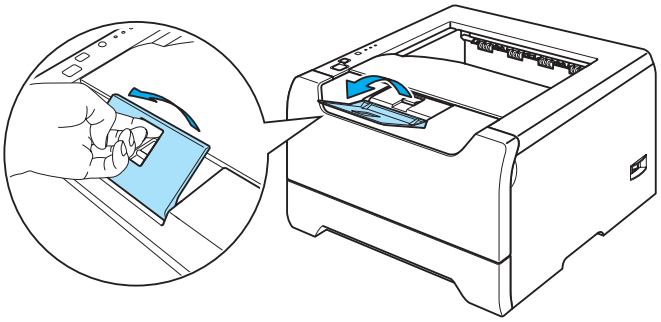
[1] Legal size paper is not available in some regions outside the USA and Canada.

4 Put paper in the tray, and below the maximum paper mark (▼).



5 Put the paper tray firmly back in the printer. Make sure that it is completely inserted into the printer.

6 Lift up the support flap to prevent paper from sliding off the face-down output tray, or remove each page as soon as it comes out of the printer.



7 Send the print data to the printer.

Note

- The side to be printed on must be face down.
- When printing on transparencies, remove each transparency at once after printing. Stacking the printed transparencies may cause a paper jam or the transparency to curl.

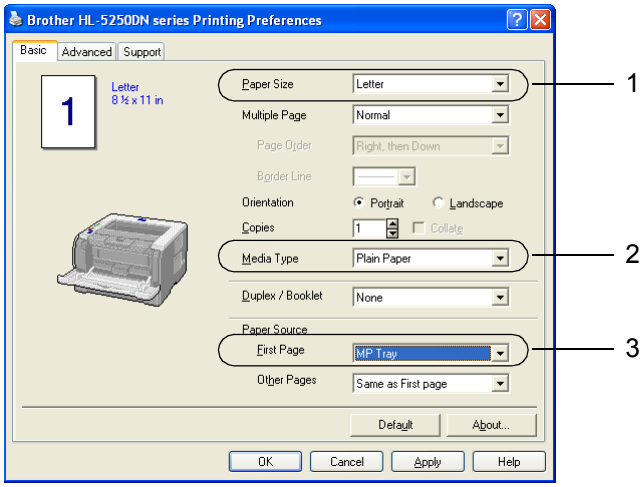
Printing on plain paper, bond paper or transparencies from the MP tray

MP Tray mode is automatically turned on when paper is put in the multi-purpose tray.

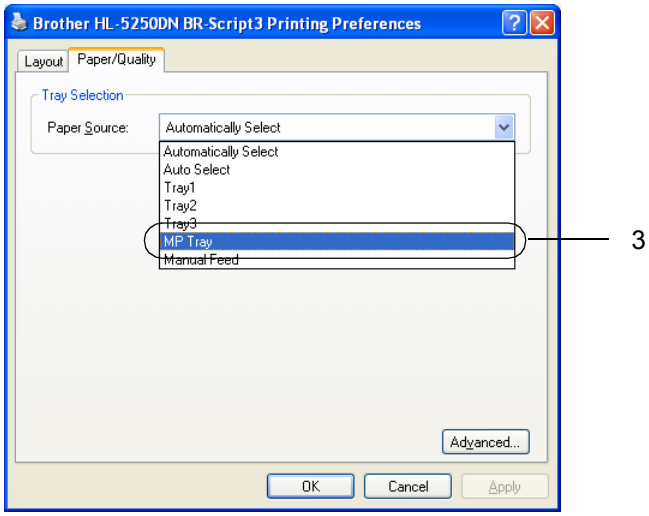
For the proper paper to use, see *About paper* on page 2-1.

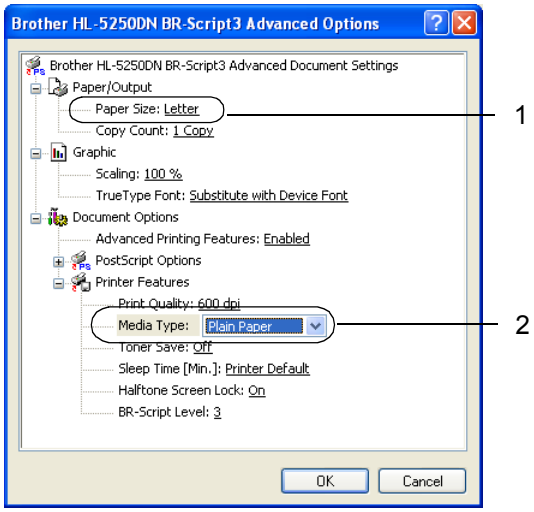
1. Choose the following from the printer driver:
   Paper Size .....(1)
   Media Type .....(2)
   Paper Source .....(3)
   and any other settings.

■ Windows printer driver

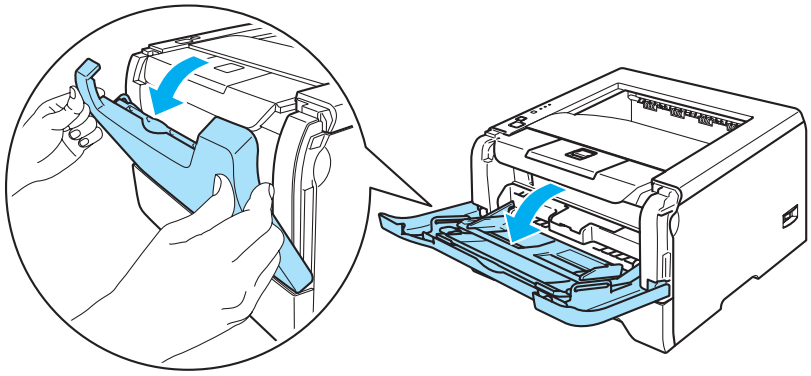


■ BR-Script printer driver

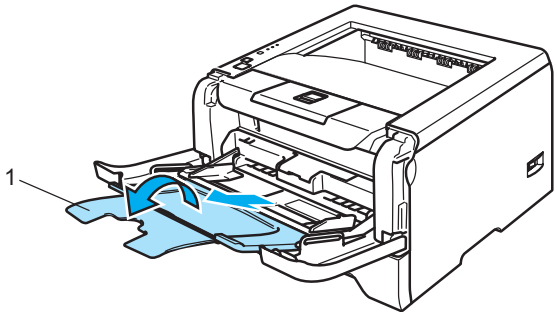




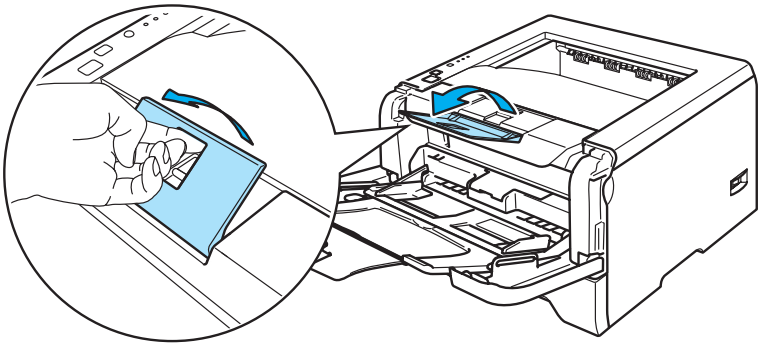
2 Open the MP tray and lower it gently.



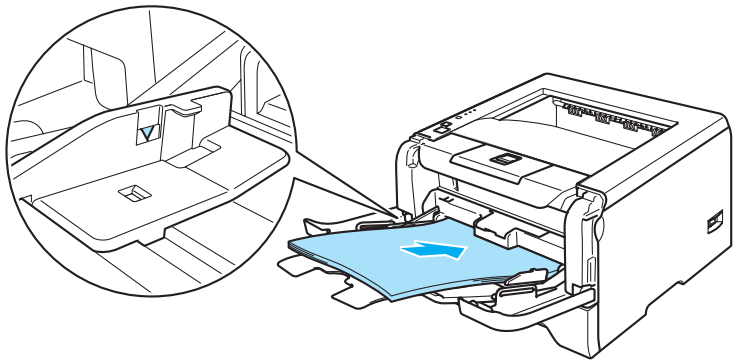
3 Pull out the MP tray support flap (1).



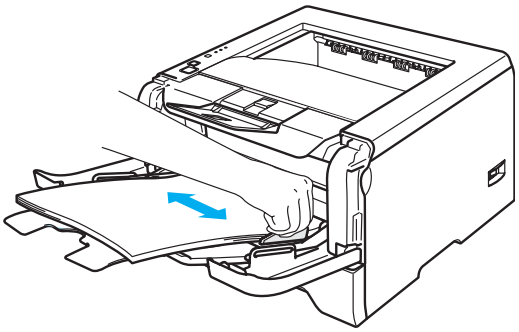
4 Lift up the support flap to prevent paper from sliding off the face-down output tray, or remove each page as soon as it comes out of the printer.



5 Put paper in the MP tray. Make sure that the paper stays under the maximum paper mark (▼) on both sides of the tray.



6 While pressing the paper-guide release lever, slide the paper guide to fit the paper size.



7 Send the print data to the printer.

Note

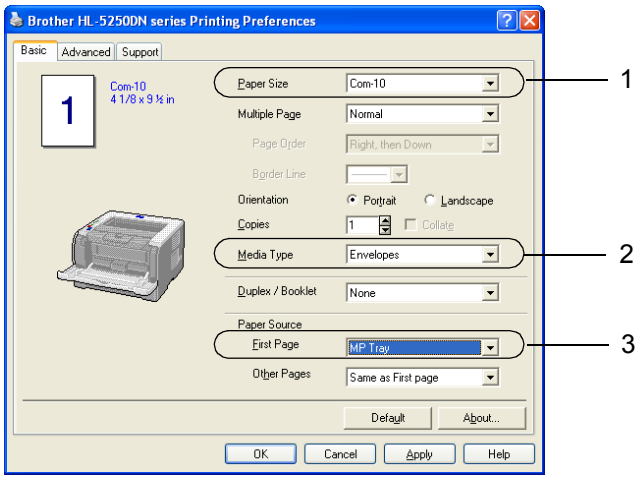
- The side to be printed on must be face up with the leading edge (top of the paper) in first.
- When printing on transparencies, remove each transparency at once after printing. Stacking the printed transparencies may cause a paper jam or the transparency to curl.

Printing on thick paper, labels and envelopes

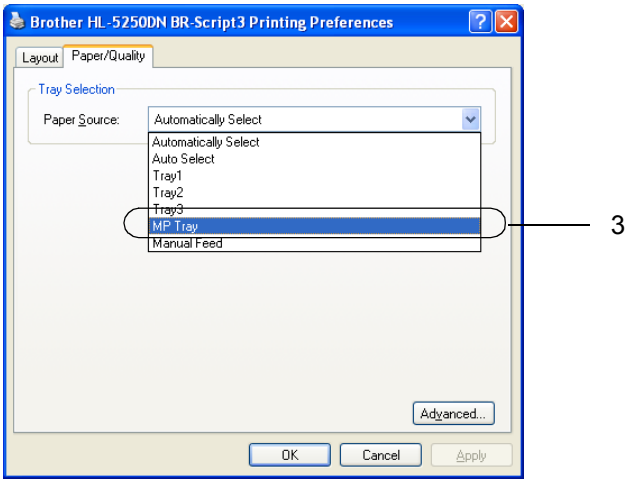
MP Tray mode is automatically turned on when paper is put in the multi-purpose tray.
For the proper paper to use, see *About paper* on page 2-1 and *Types of envelopes* on page 2-3.

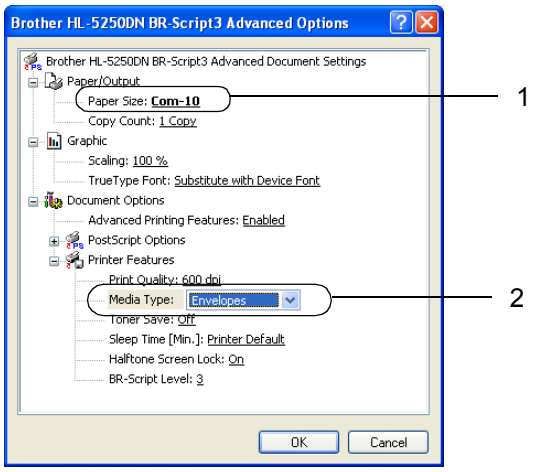
1. Choose the following from the printer driver:
   Paper Size .....(1)
   Media Type .....(2)
   Paper Source .....(3)
   and any other settings.

■ Windows printer driver



■ BR-Script printer driver

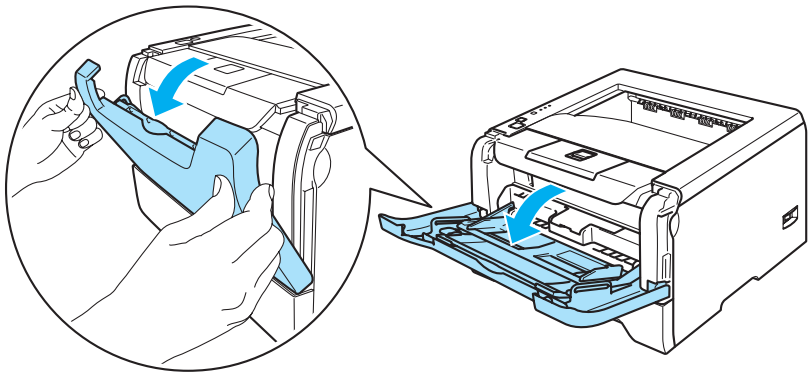




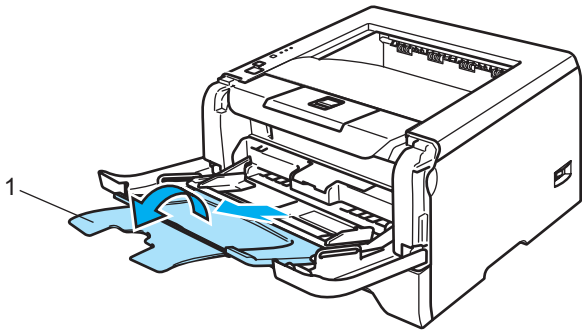
Note

- When you use Envelope #10, choose **Com-10** in **Paper Size**.
- For other envelopes which are not listed in the printer driver, such as Envelope #9 or Envelope C6, choose **User Defined...** For more information on the envelope size, see Paper size on page A-8.

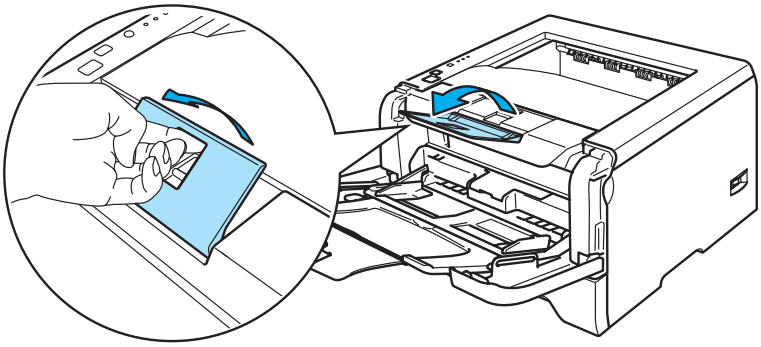
2 Open the MP tray and lower it gently.



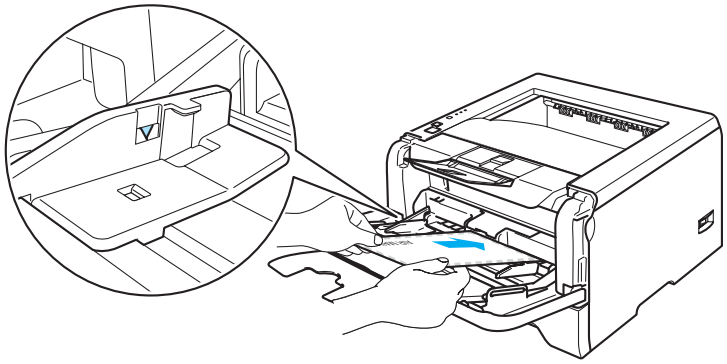
3 Pull out the MP tray support flap (1).



4 Lift up the support flap to prevent paper from sliding off the face-down output tray, or remove each page as soon as it comes out of the printer.



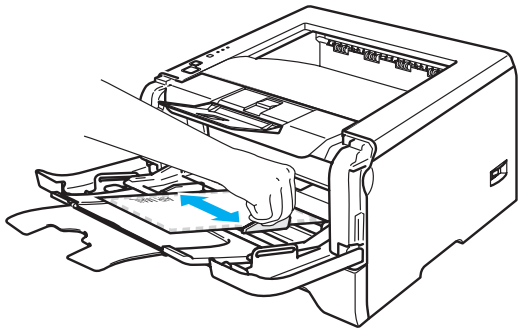
5 Put paper in the MP tray. Make sure that the paper stays under the maximum paper mark (▼) on both sides of the tray.



Note

- Envelope joints that are sealed by the manufacturer should be secure.
- The side to be printed on must be face up.
- All sides of the envelope should be properly folded without wrinkles or creases.

6 While pressing the paper-guide release lever, slide the paper guide to fit the paper size.



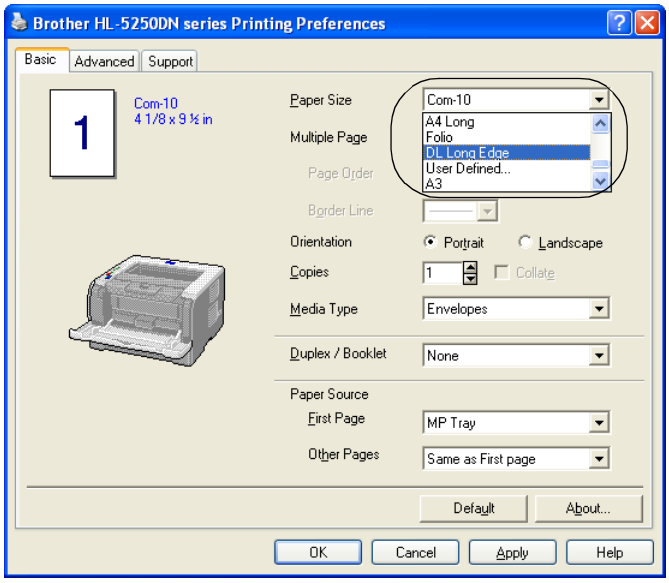
7 Send the print data to the printer.

Note

- Remove each sheet or envelope at once after printing. Stacking the sheets or envelopes may cause the paper to jam or curl.
- If envelopes get smudged during printing set the **Media Type** to **Thick Paper** or **Thicker Paper** to increase the fixing temperature. To adjust the print density setting, see *Printing on thick paper, labels and envelopes* on page 2-11.
- If the envelopes is creased after they are printed, see *Improving the print quality* on page 7-13.

Note

- If the DL size double flap envelope is creased after printing, choose **DL Long Edge** in **Paper Size**, from the **Basic** tab. Put a new DL size double-flap envelope in the MP tray with the longest edge of the envelope in first, then print again.



- When you put paper in the MP tray, remember the following:
  - Put the leading edge (top of the paper) in first and push it gently into the tray.
  - Make sure that the paper is straight and in the proper position in the MP tray. If it is not, the paper may not be fed properly, resulting in a skewed printout or a paper jam.

Duplex Printing

The supplied printer drivers for Windows® 95/98/Me/2000/XP and Windows NT® 4.0, Mac OS® 9.1 to 9.2 and Mac OS® X 10.2.4 or greater all enable duplex printing. For more information about how to choose the settings, see the **Help** text in the printer driver.

Guidelines for printing on both sides of the paper

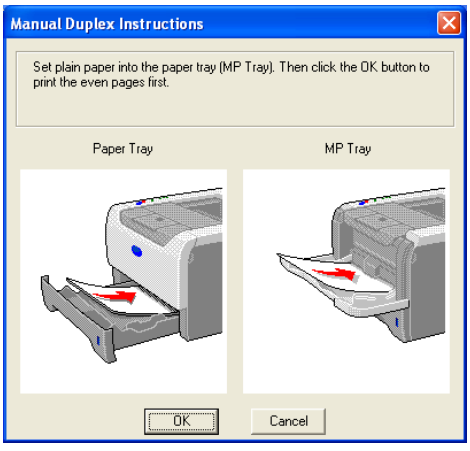
- If the paper is thin, it may wrinkle.
- If paper is curled, straighten it and then put it back in the paper tray or the MP tray.
- If the paper is not feeding properly, it may be curled. Remove the paper and straighten it.
- When you use the manual duplex function, it is possible that there may be paper jams or poor print quality. If there is a paper jam, see *Paper jams and how to clear them* on page 7-6. If you have a print quality problem, see *Improving the print quality* on page 7-13.

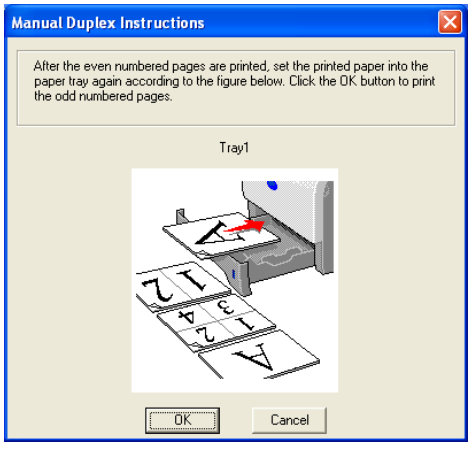
Manual duplex printing

- The BR-Script printer driver (PostScript® 3™ emulation) does not support manual duplex printing.
- Use plain paper or recycled paper. Do not use bond paper.

Manual duplex printing from the paper tray

1. In the printer driver choose the **Advanced** tab, then choose the **Manual Duplex** printing mode, and from the **Basic** tab choose the **Paper Source** to be **Tray1**.
2. Send the data to the printer.
   The printer will automatically print all the even-numbered pages on one side of the paper first.
3. Remove the printed even-numbered pages from the output tray and put them back in the paper tray with the side to be printed on (blank side) face down. Follow the instructions on the PC screen.


Manual Duplex Instructions
Set plain paper into the paper tray (MP Tray). Then click the OK button to print the even pages first.
Paper Tray
MP Tray
OK
Cancel


Manual Duplex Instructions
After the even numbered pages are printed, set the printed paper into the paper tray again according to the figure below. Click the OK button to print the odd numbered pages.
Tray1
OK
Cancel

4. The printer will now automatically print all the odd-numbered pages on the other side of the paper.

Note

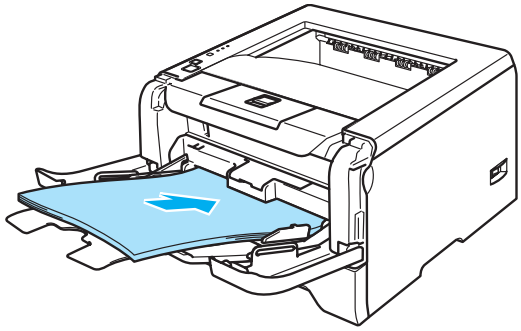
- If you choose the **Paper Source** to be **Auto Select**, put the printed even-numbered pages in the MP tray.
- When you put paper in the paper tray, first empty the tray. Next, put the printed pages in the tray, with the printed side face up. (Do not add the printed pages to the top of a stack of unprinted paper.)

Manual duplex printing from the MP tray

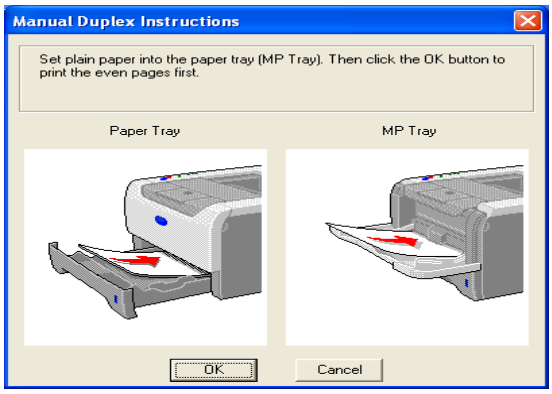
Note

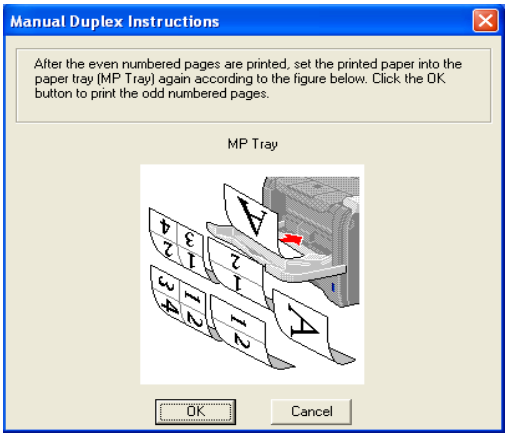
Before putting the sheets back in the MP tray, you will have to straighten them or you may get paper jams.

1. From the **Advanced** tab choose the **Manual Duplex** printing mode, and from the **Basic** tab choose the **Paper Source** to be **MP Tray**.
2. Put the paper in the MP tray with the side to be printed on first facing up. Follow the instructions on the PC screen. Repeat this step until you have printed all the even-numbered pages.



3. Remove the printed even-numbered pages from the output tray and then, in the same order, put them back into the MP tray. Put the paper with the side to be printed on (the blank side) face up. Follow the instructions on the PC screen.


Manual Duplex Instructions
Set plain paper into the paper tray (MP Tray). Then click the OK button to print the even pages first.
Paper Tray
MP Tray
OK
Cancel


Manual Duplex Instructions
After the even numbered pages are printed, set the printed paper into the paper tray (MP Tray) again according to the figure below. Click the OK button to print the odd numbered pages.
MP Tray
OK
Cancel

4. Repeat ❸ until you have printed all the odd-numbered pages on the other side of the paper.

Paper orientation for manual duplex printing

The printer prints the second page first.

If you print 10 pages on 5 sheets of paper, it will print page 2 and then page 1 on the first sheet of paper. It will print page 4 and then page 3 on the second sheet of paper. It will print page 6 and then page 5 on the third sheet of paper, and so on.

When doing manual duplex printing, the paper must be put in the paper tray in the following way:

- For the paper tray:
  - Put the side to be printed on face down with the leading edge (top) of the paper at the front of the tray.
  - To print on the second side, put the paper face up, with the leading edge (top) of the paper at the front of the tray.
  - If letterhead paper is used, put the paper in the tray with the heading face up at the front of the tray.
  - To print on the second side, put the heading face down at the front of the tray.
- For the multi-purpose tray (MP tray):
  - Put the side to be printed on face up with the leading edge (top) of the paper in first.
  - To print on the second side, put the paper face down, with the leading edge (top) of the paper in first.
  - If letterhead paper is used, put it in with the heading face down and in first.
  - To print on the second side, put the heading face up and in first.

Automatic duplex printing (For HL-5250DN)

Note

- The screens in this section are from Windows® XP. The screens on your PC may vary depending on your operating system.
- Use A4, Letter or Legal size paper when you use the automatic duplex printing function.
- Make sure that the back cover is closed.
- Make sure that the duplex tray is installed correctly in the printer.
- If paper is curled, straighten it and then put it back in the paper tray.
- You should use regular paper. Do not use bond paper or thin paper.

1. Put paper in the paper tray or MP tray.
2. **For the Windows printer driver**

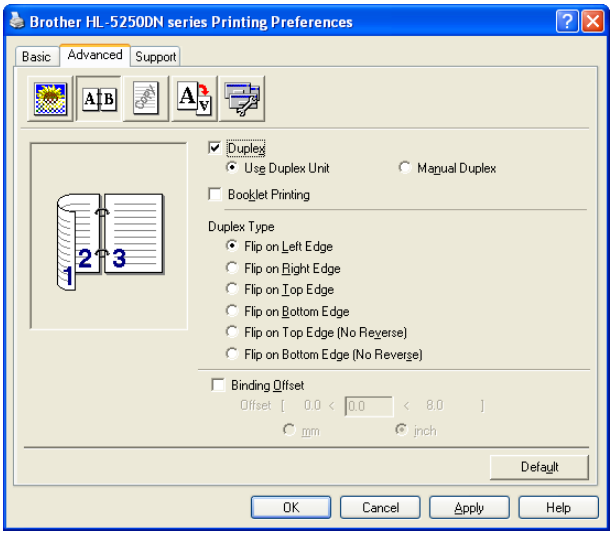
   1 Open the **Properties** dialog box in the printer driver.

   2 From the **General** tab, click the **Printing Preferences** icon.

   3 From the **Advanced** tab, click the **Duplex** icon.

   4 Make sure that **Use Duplex Unit** has been chosen.

   5 Click **OK**. The printer will print on both sides of the paper automatically.



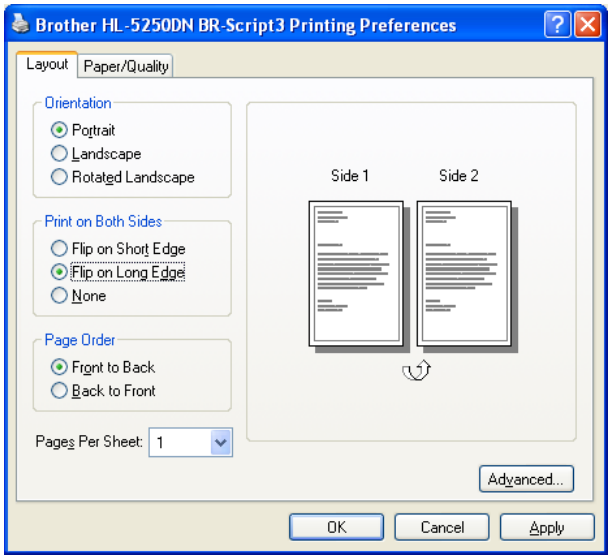
For the BR-Script printer driver

1 Open the **Properties** dialog box in the printer driver.

2 From the **General** tab, click the **Printing Preferences** icon.

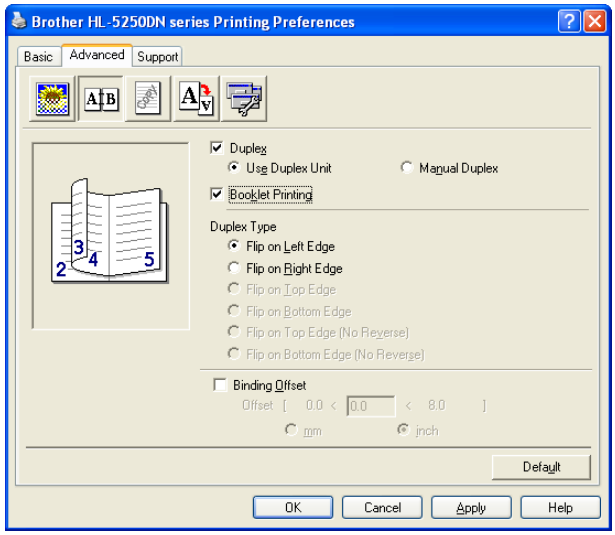
3 From the **Layout** tab, choose **Orientation**, **Print on Both Sides (Duplex)** and **Page Order**.

4 Click **OK**. The printer will print on both sides of the paper automatically.



Booklet printing (For Windows printer driver)

1. Put paper in the paper tray or MP tray.
2. Open the **Properties** dialog box in the printer driver.
3. From the **General** tab, choose the **Printing Preferences** icon.
4. From the **Advanced** tab, choose **Duplex** and **Use Duplex Unit** or **Manual Duplex**, and then choose **Booklet Printing**.
5. Click **OK**. The printer will print a booklet automatically.



3 Driver and Software

Printer driver

A printer driver is software that translates data from the format used by a computer to the format that a particular printer needs. Typically, this format is a printer command language (PCL) or page description language (PDL).

The printer drivers for the following version of Windows® and Macintosh® are on the CD-ROM we have supplied. Install the drivers by following the Quick Setup Guide. The latest printer driver can be downloaded from the Brother Solutions Center at http://solutions.brother.com.

If you want to uninstall the printer driver, see *Uninstalling the printer driver* on page 3-18.

For Windows®

- Windows printer driver (Hewlett-Packard® laser printer compatible driver)
- BR-Script (PostScript®3™ language emulation) printer driver
- Generic PCL Driver (For users of Citrix® MetaFrame®, Windows® Terminal Server environments and other Windows NT 4.0® and Windows® 2000/XP network shared environments, we recommend the use of our generic PCL Driver. This driver only supports basic printing functions.)

For Macintosh®

- Brother Laser driver for Macintosh®
- BR-Script (PostScript®3™ language emulation) printer driver

For Linux

- LPR printer driver
- CUPS printer driver

Note

- For more infomation about the generic PCL Driver and Linux printer driver, visit us at http://solutions.brother.com.
- The printer driver for Linux may be released after the initial release of this product.

	Windows printer driver	BR-Script printer driver	Generic PCL Driver	Brother Laser driver	LPR / CUPS printer driver
Windows® 95/98/Me	ⓘ	ⓘ			
Windows NT® 4.0 Windows® 2000 Professional Windows® XP Home Edition Windows® XP Professional	ⓘ	ⓘ	ⓘ		
Windows® XP Professional x64 Edition	ⓘ	ⓘ			
Mac OS® 9.1 to 9.2 Mac OS® X 10.2.4 or greater		ⓘ		ⓘ	
Linux (Mandrake, Red Hat, SuSE Linux, Debian)					ⓘ

You can change the following printer settings when you print from your computer.

- Paper Size
- Multiple Page
- Orientation
- Copies
- Media Type
- Paper Source
- Resolution
- Toner Save Mode
- Duplex printing (Manual Duplex printing [1] [3] / Duplex printing with Duplex tray [4])
- Watermark [1] [3]
- Job Spooling [1] [3]
- Quick Print Setup [1] [3]
- Sleep Time
- Status Monitor [1]
- Macro [1] [3]
- Administrator [1] [2] [3]
- Insert Command/File [1] [2] [3]
- Page Protection [1] [3]
- Print Date & Time [1] [3]
- Density adjustment [1] [3]
- Error Message Printout [1] [3]

1 These settings are not available with the BR-script printer driver for Windows®.

2 These settings are not available with Windows NT® 4.0 and Windows® 2000/XP.

3 These settings are not available with Brother Laser driver and BR-Script printer driver for Macintosh®.

4 This setting is not available for HL-5240.

Features in the printer driver (For Windows®)

For more information, see the **Help** text in the printer driver.

Note

- The screens in this section are from Windows® XP. The screens on your PC will vary depending on your operating system.
- If you are using Windows® 2000 or XP, you can access the **Printing Preferences** dialog box by clicking **Printing Preferences...** in the **General** tab of the **Printer Properties** dialog box.
- If you are using Windows NT® 4.0, you can access the **Printing Preferences** dialog box by clicking **Document Defaults...** from the **File** menu of the **Printers** folder.

Basic tab

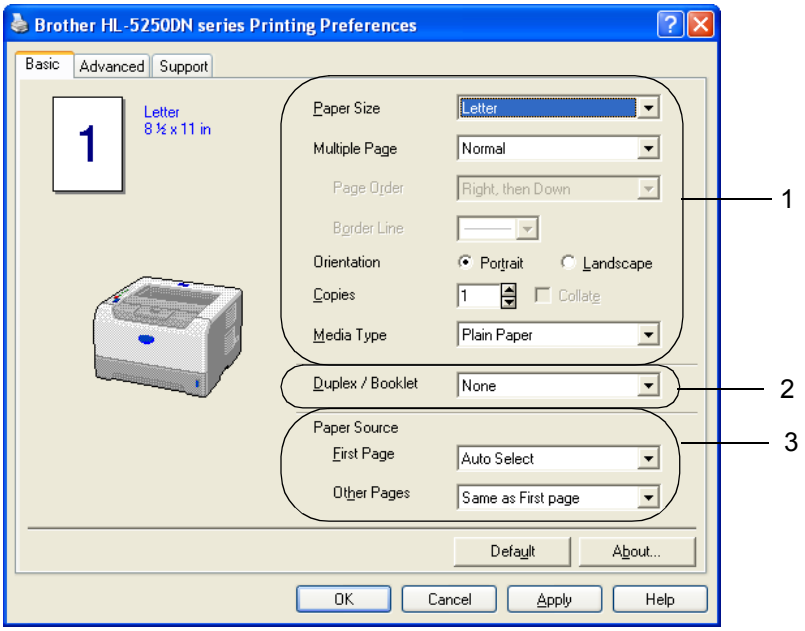
You can also change settings by clicking the illustration on the left side of the **Basic** tab.

1. Choose the **Paper Size**, **Multiple Page**, **Orientation** and other settings (1).
2. Choose the **Duplex / Booklet** setting from **None**, **Duplex** or **Booklet** (2).

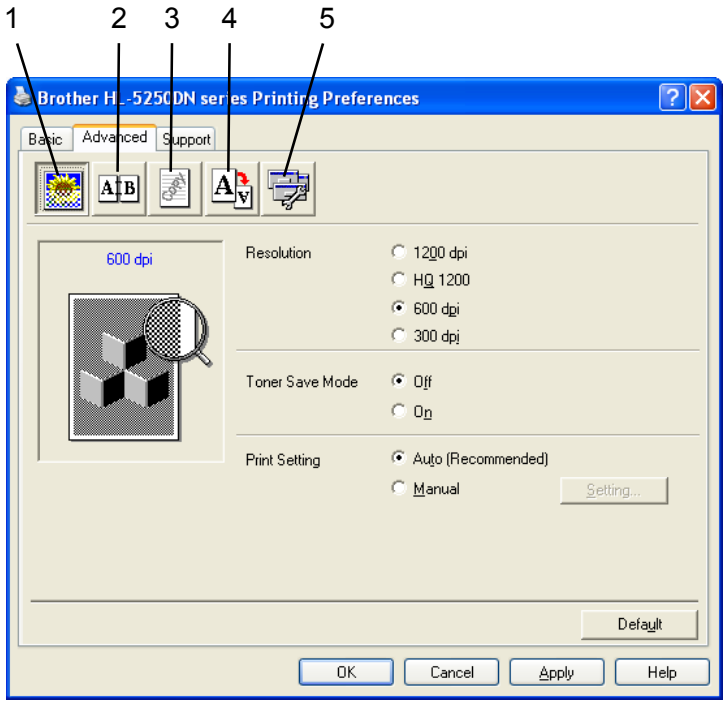
Note

You can choose more detailed settings for Duplex or Booklet printing in the the **Advanced** tab. See *Duplex Printing* on page 3-6.

3. Choose the **Paper Source** (3).
4. Click **OK** to apply your chosen settings.
   To return to the default settings, click **Default**, then **OK**.



Advanced tab



Change the tab settings by clicking one of the following icons:

- Print Quality (1)
- Duplex Printing (2)
- Watermark (3)
- Page Setting (4)
- Device Options (5)

Print Quality

- **Resolution**

  You can change the resolution as follows:

  - 1200 dpi
  - HQ 1200
  - 600 dpi
  - 300 dpi

Note

If you use the high quality 1200 dpi setting (1200 × 1200 dpi) the print speed will be slower.

■ **Toner Save Mode**

You can save running costs by turning on the **Toner Save Mode**, which reduces the print density.

Note

- We do not recommend Toner Save for printing Photo or Gray Scale images.
- **Toner Save Mode** is not available for **1200 dpi** or **HQ 1200** resolution.

■ **Print Setting**

You can manually change the print setting.

- **Auto**

  Choosing **Auto** will allow automatic printing with the most suitable print settings for your print job.

- **Manual**

  You can change the settings manually by choosing **Manual** and clicking the **Setting...** button.

  You can set brightness, contrast and other settings.

Duplex Printing

■ **Use Duplex Unit (For HL-5250DN)**

If you choose **Use Duplex Unit** button, the dialog box for the duplex settings will appear. There are six types of duplex binding directions available for each orientation, automatically.

■ **Manual Duplex**

If you choose **Manual Duplex** button, the dialog box for the manual duplex settings will appear. There are six types of manual duplex binding directions available for each orientation.

■ **Booklet Printing**

When you want to print a booklet, use this function. To make the Booklet, fold the printed pages down the middle, when using the booklet printing function.

■ **Binding Offset**

If you check the Binding Offset option, you can also specify the offset for binding in inches or millimeters.

Watermark

You can put a logo or text into your documents as a watermark.

You can choose one of the preset watermarks, or you can use a bitmap file or text file that you have created.

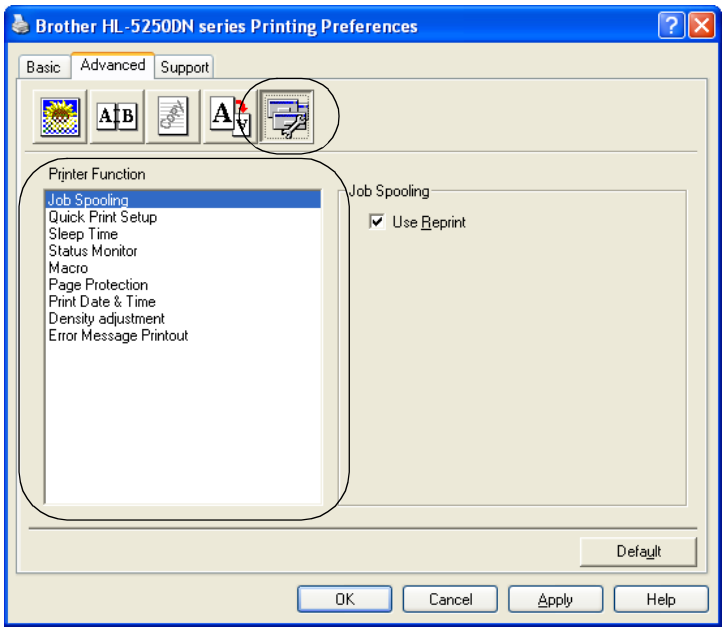
When you use a bitmap file as a watermark, you can change the size of the watermark and put it anywhere you like on the page.

When you use text as a watermark, you can change the font, darkness and angle settings.

Page Setting

You can change the print image scaling and choose **Mirror/Reverse print** options.

Device Options



You can set the following in **Printer Function**:

(You can jump to the page for each **Printer Function** by choosing the function name in the list below.)

- Job Spooling
- Quick Print Setup
- Sleep Time
- Status Monitor
- Macro
- Administrator (For Windows® 95/98/Me only)
- Insert Command/File (For Windows® 95/98/Me only)
- Page Protection
- Print Date & Time
- Density adjustment
- Error Message Printout

Note

The **Printer Function** list may vary depending on the model.

Job Spooling

The printer keeps the last print job sent to it in memory.

To reprint the last document, press **Go** and hold it down for about 4 seconds until all the LEDs light up in order (**Toner**, **Drum**, **Paper**, **Status**), and then release **Go**. Within 2 seconds press **Go** the number of times you want to reprint. If you don't press **Go** within 2 seconds, a single copy will be printed.

Note

If you want to prevent other people from printing your data using the reprint function, uncheck the **Use Reprint** check box in the job spooling settings.

Quick Print Setup

This feature allows you to quickly choose driver settings. To view settings, click the tasktray icon.

You can turn the quick print setup function on or off. A small selection window appears on your PC. This will then let you make changes to the settings of the following functions:

- Multiple Page
- Duplex Printing
- Toner Save Mode
- Paper Source
- Media Type

Sleep Time

When the printer does not receive data for a certain period of time, it enters sleep mode. In sleep mode, the printer acts as though it were turned off. When you choose **Printer Default** the timeout setting will be 5 minutes. Intelligent Sleep Mode automatically adjusts to the most suitable timeout setting depending on the frequency of your printer use. While the printer is in sleep mode, all the LEDs are off, but the printer can still receive data. Receiving a print file or document or pressing **Go** will automatically wake up the printer to start printing.

To turn sleep mode off, from the **Advanced** tab, click the **Device Options** icon and choose **Sleep Time**. Double-click the word **Sleep Time**, and the Sleep Time Off function will appear. Click **Off** to stop the printer going into sleep mode. The Sleep Time Off function can be hidden by double-clicking the word Sleep Time again. We recommend that you keep sleep mode on for power saving.

Status Monitor

This reports the printer status (any errors that may happen with the printer) when printing. The default setting for the Status Monitor is off. If you want to turn the status monitor on, from the **Advanced** tab, click the **Device Options** icon and then choose **Status Monitor**.

Macro

You can save a page of a document as a macro to printer memory. You can also execute the saved macro (you can use the saved macro as an overlay on any documents). This will save time and increase printing speed for often used information such as forms, company logos, letterhead formats or invoices.

■ **Administrator** (For Windows® 95/98/Me only)

Administrators have the authority to limit the number of copies, scaling setting and watermark setting functions.

- Password

  Enter the password into this box.

- Set Password

  Click here to change the password.

- COPY LOCK

  Lock the copy pages selection to prevent multiple copy printing.

- WATERMARK LOCK

  Lock the current settings of the Watermark option to prevent changes being made.

- SCALING LOCK

  Lock the scaling setting as shown below:

  1 in 1
  100%

■ **Insert Command/File** (For Windows® 95/98/Me only)

This function lets you to do the following:

- Put a print file or tiff format file into a print job.
- Put a text string into a print job.
- Put a macro, which is saved in printer memory, into a print job.

■ **Page Protection**

Page Protection refers to a setting that reserves extra memory for the creation of full-page images.

Selections are **AUTO**, **OFF** and **Printer Default**.

The page protection feature allows the printer to create the full-page image to be printed in memory before physically moving the paper through the printer. Use this function when the image is complicated and the printer has to wait to process the image before printing.

■ **Print Date & Time**

When this feature is enabled, the date and time will print on your document.

■ **Density adjustment**

Increase or decrease the print density.

Note

The **Density adjustment** is not available when you set the **resolution** to **HQ 1200**.

■ **Error Message Printout**

You can choose whether the printer reports problems by printing an error page. For details, see *Error message printout* on page 7-4.

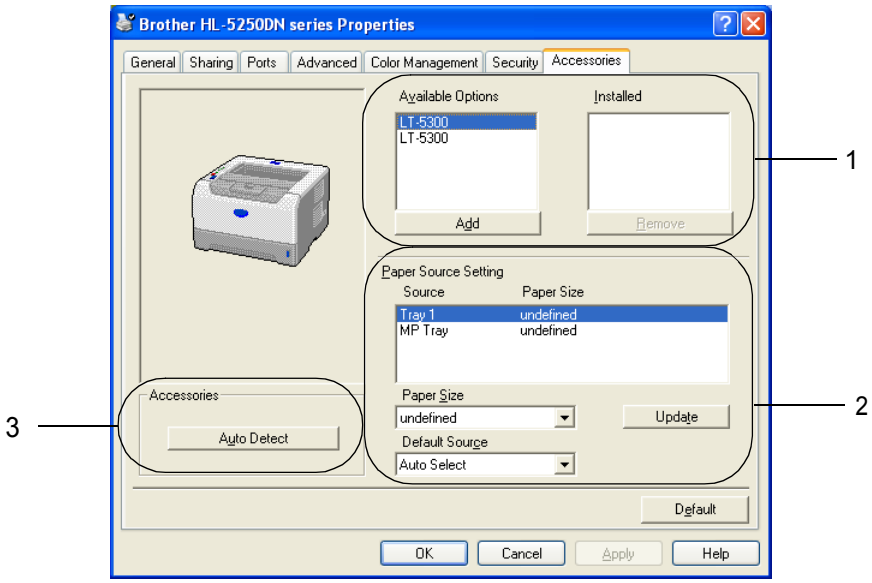
Selections are **Printer Default** (ON), **ON** and **OFF**.

Accessories tab

Note

From the **Start** menu, select **Control Panel** and then **Printers** [1]. Right-click the **Brother HL-5240/5250DN series** icon and select **Properties**. You can access the **Accessories** tab from the **Printer Properties** dialog box.

[1] **Printers and Faxes** for Windows® XP users.



■ **Available Options** (1)

You can manually add and remove the options that are installed on the printer.

■ **Paper Source Setting** (2)

This feature identifies the paper size defined for each paper tray.

- **Paper Size**

  This setting allows you to define which paper size is used for each tray. Highlight the tray you want to define and then choose the paper size from the pull-down menu. Click **Update** to apply the setting to the tray. When using more than one paper size you must define the paper size for each tray so the paper is pulled from the correct tray.

- **Default Source**

  This setting allows you to choose the default paper source that your document will be printed from. Choose the **Default Source** from the pull-down menu and click **Update** to save your setting. The **Auto Select** setting will automatically pull paper from any tray that has a defined paper size that matches your document.

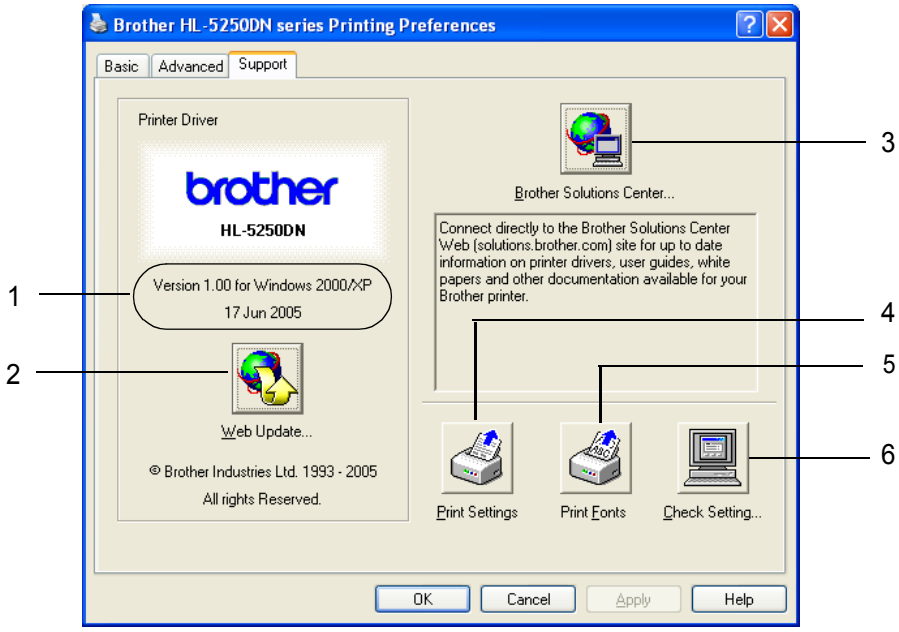
■ **Auto detection of printer options** (3)

The **Auto Detect** function finds the currently installed optional unit devices and shows the available settings in the printer driver. When you click **Auto Detect**, options that are installed on the printer will be listed. You can manually add or remove options.

Note

The **Auto Detect** function is not available under certain printer conditions.

Support tab



- **Version** (1)

  Displays the printer driver version.

- **Web Update** (2)

  You can check the Brother web site for updated drivers, and automatically download and update the printer driver on your PC.

- **Brother Solutions Center** (3)

  The Brother Solutions Center (http://solutions.brother.com) is a web site offering information about your Brother product including FAQs (Frequently Asked Questions), User's Guides, driver updates and tips for using your printer.

- **Print Settings** (4)

  This will print the pages that show how the internal settings of the printer have been configured.

- **Print Fonts** (5)

  This will print the pages that show all the internal fonts of the printer.

- **Check Setting...** (6)

  This will show the current settings of the printer driver.

Features in the BR-Script (PostScript® 3™ language emulation) printer driver (For Windows®)

For more information, see the **Help** text in the printer driver.

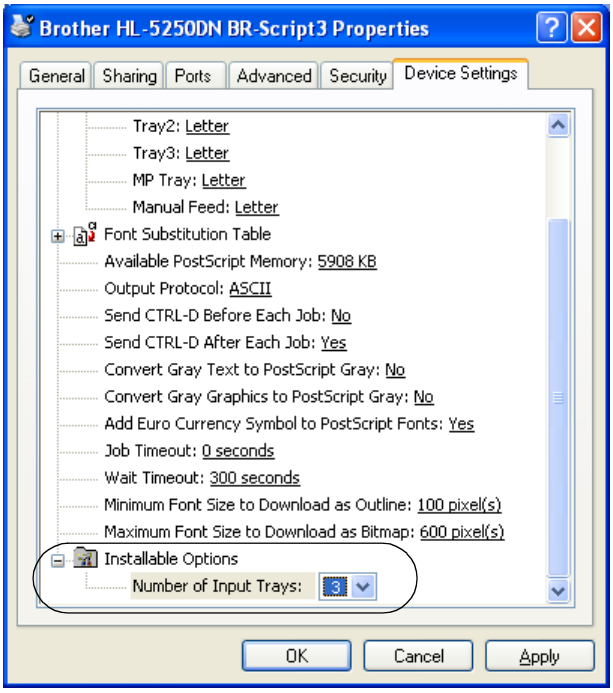
Note

The screens in this section are based on HL-5250DN with Windows® XP.

The screens on your PC may vary depending on the printer model and your operating system.

Device Settings tab

Choose the options you have installed.



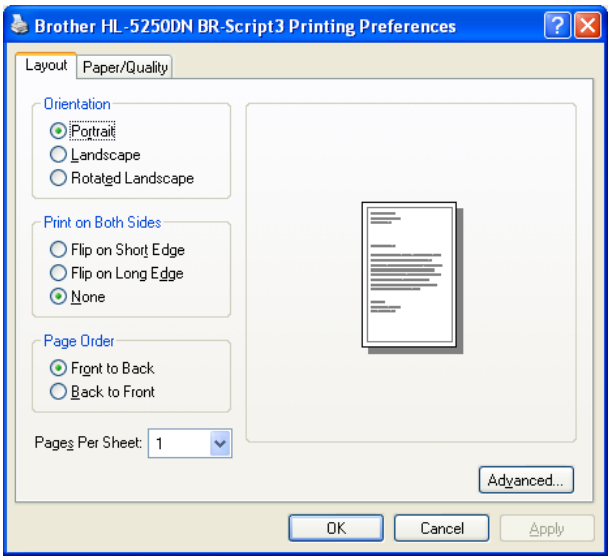
Printing Preferences

Note

If you are using Windows NT® 4.0, Windows® 2000 or XP, you can access the Printing Preferences dialog box by clicking **Printing Preferences...** in the **General** tab of the **Brother HL-5240/HL-5250DN BR-Script3 Properties** dialog box.

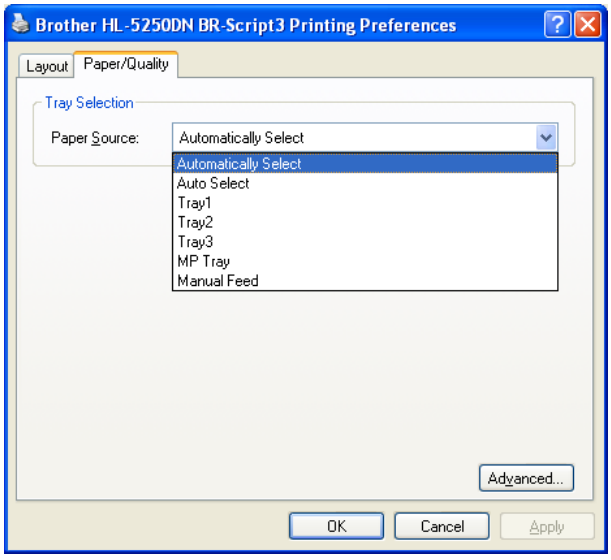
■ Layout tab

You can change the layout setting by choosing the settings for **Orientation**, **Print on Both Sides** (Duplex), **Page Order** and **Pages Per Sheet**.

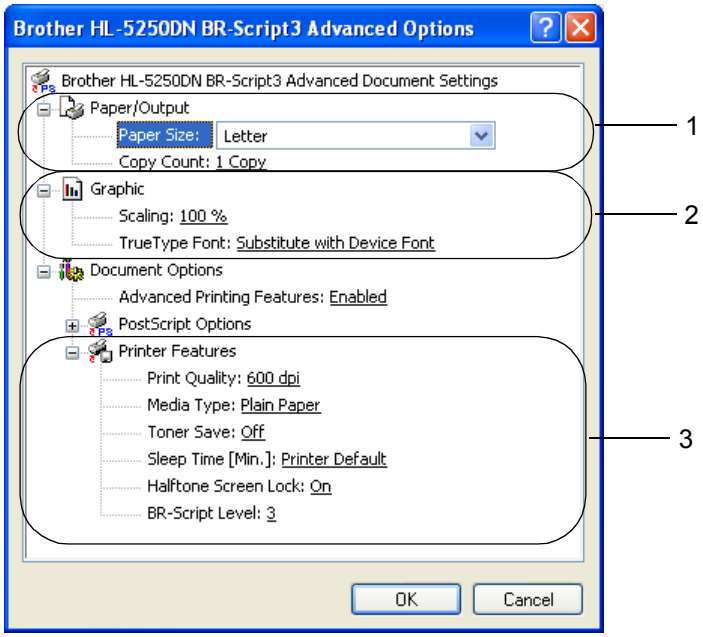


■ Paper/Quality tab

Choose the **Paper Source**.



Advanced options



1. Choose the **Paper Size** and **Copy Count** (1).
2. Set the **Scaling** and **TrueType Font** settings (2).
3. You can change settings by choosing the setting in the **Printer Features** list (3):
   - Print Quality
   - Media Type
   - Toner Save
     You can save running costs by turning on the **Toner Save**, which reduces the print density.
   - Sleep Time
     See *Device Options* on page 3-7.
   - Halftone Screen Lock
   - BR-Script Level

Features in the printer driver (For Macintosh®)

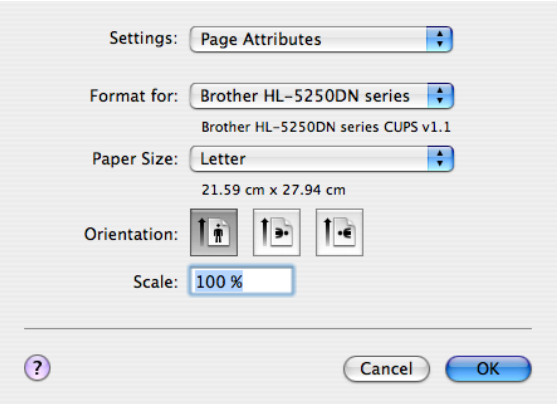
This printer supports Mac OS® 9.1 to 9.2 and Mac OS® X 10.2.4 or greater.

Note

The screens in this section are from Mac OS® X 10.4. The screens on your Macintosh® will vary depending on your operating system.

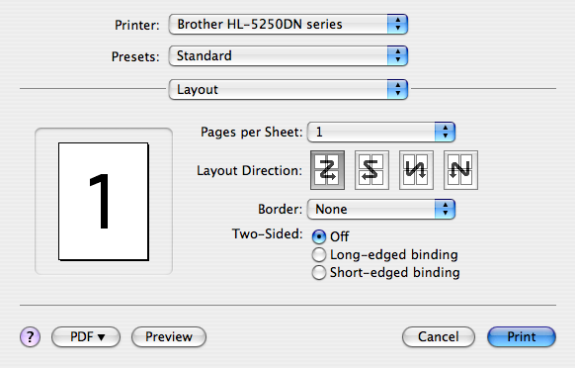
Page Setup

You can set the **Paper Size**, **Orientation** and **Scale**.



Layout

Set the **Pages per Sheet**, **Layout direction** and **Border**.



- **Pages per Sheet**

  Choose how many pages will appear on each side of the paper.

- **Layout Direction**

  When you specify the pages per sheet, you can also specify the direction of the layout.

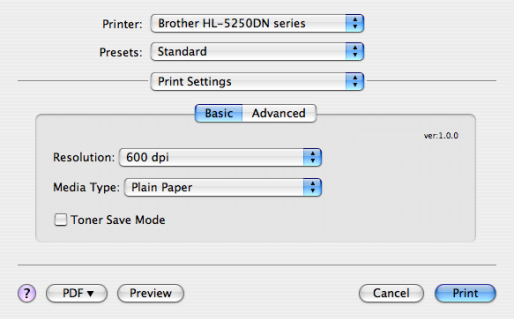
- **Border**

  If you want to add a border, use this function.

Print Settings

You can change settings by choosing the setting in the **Print Settings** list:

Basic tab



■ Resolution

You can change the resolution as follows:

- 300 dpi
- 600 dpi
- HQ 1200
- 1200 dpi

Note

If you use the high quality 1200 dpi setting (1200 × 1200 dpi) the print speed will be slower.

■ Media Type

You can change the media type as follows:

- Plain Paper
- Thin Paper
- Thick Paper
- Thicker Paper
- Bond Paper
- Transparencies
- Envelopes
- Env.Thick
- Env.Thin
- Recycled Paper

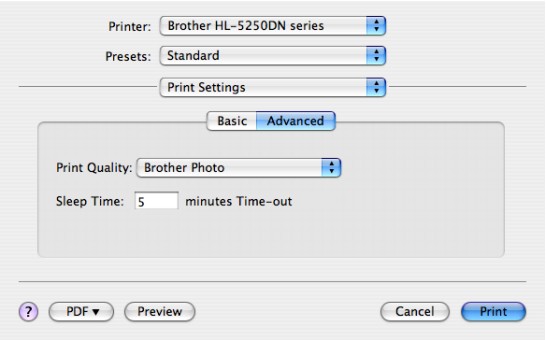
■ Toner Save Mode

You can save running costs by turning on Toner save, which reduces the print density.

Note

- We do not recommend Toner Save for printing Photo or Gray Scale images.
- **Toner Save Mode** is not available for **1200 dpi** or **HQ 1200** resolution.

Advanced tab



■ Print Quality

You can change the print quality as follows:

- Brother Photo

  This is a photograph mode (gradation priority). Choose this setting for printing photographs that have continuous gradation. You can represent soft contrasts between various shades of gray.

- Brother Graphics

  This is a graphics mode (contrast priority). Choose this setting for printing text and figures, such as business and presentation documents. You can represent sharp contrasts between shaded areas.

- Generic

  This is a standard halftone pattern of Mac® OS X. If you choose this mode for printing text documents, the print speed will be faster. Use this mode for Mac®s that have less memory.

■ Sleep Time

When the printer does not receive data for a certain period of time (timeout), it enters sleep mode. In sleep mode, the printer acts as though it were turned off. The default timeout is 5 minutes. While the printer is in sleep mode, all the LEDs are off, but the printer can still receive data. Receiving a print file or document or pressing **Go** will automatically wake up the printer to start printing.

Status Monitor (For Mac® X 10.2.4 or greater users)

This reports the printer status (any errors that may happen with the printer) when printing. If you would like to turn the status monitor on, run the **BrStatusMonitor.app** (from the **Macintosh HD** (Startup Disk), choose **Library**, **Printers**, **Brother**, **Utilities**).

Uninstalling the printer driver

You can uninstall the printer driver that you installed with the following steps.

Note

- This is not available if you installed the printer driver from the Windows Add a printer function.
- After uninstalling, we recommend that you restart your computer to remove files that were in use during the uninstall.

Printer driver for Windows®

For Windows® XP

1. Click the **Start** button, point to **All Programs** and then to your printer name.
2. Click **UnInstall**.
3. Follow the instructions on the screen.

For Windows® 95/98/Me/2000 and Windows NT® 4.0

1. Click the **Start** button, point to **Programs** and then to your printer name.
2. Click **UnInstall**.
3. Follow the instructions on the screen.

Brother Laser driver for Macintosh®

For Mac OS® X 10.2.4 or greater

1. Disconnect the USB cable between the Macintosh and your printer.
2. Restart the Macintosh®.
3. Log on as an 'Administrator'.
4. Run the **Printer Setup Utility** [1] (from the **Go** menu, choose **Applications**, **Utilities**), then choose the printer you want to remove and remove it by clicking the **Delete** button.
5. Drag the **HL-MFLPro** folder (from the **Macintosh HD** (Startup Disk), choose **Library**, **Printers**, **Brother**) into the Trash and then empty the Trash.
6. Restart the Macintosh®.

[1] **Print Center** for Mac OS® X 10.2 users

For Mac OS® 9.1 to 9.2

1. Open the **Extensions** folder located in the **System Folder** on the **Macintosh HD**.
2. Drag all these following files in the **Extensions** folder to the **trash**.
   - BR_PrintMonitor(laser)
   - Brother Laser
   - Brother Laser(IP)

Note

There may be several USB Print Driver(BRXXX) [1] and BR_PrintMonitor(BXX) [1] extensions with different endings.

[1] The 'x' refers to the model of your machine.

3. Restart the Macintosh®.
4. Once the computer has restarted you can then empty the trash.

Software

Software for networks (For HL-5250DN only)

BRAdmin Professional (For Windows®)

The BRAdmin Professional is a utility for managing your Brother network enabled printers that are running under Windows® 95/98/Me/2000/XP and Windows NT® 4.0. It allows you to easily configure and check the status of your printer on the network.

BRAdmin Light (For Macintosh®)

The Brother BRAdmin Light software is a Java™ application that is designed for the Apple® Mac OS®X environment. It supports some of the features of the Windows® BRAdmin software. For example, using the BRAdmin Light software, you can change some network settings and update firmware on Brother's network ready printers and multifunction devices.

Driver Deployment Wizard (For Windows®)

This installer includes the Windows® printer driver and Brother network port driver (LPR and NetBIOS). If the administrator installs the printer driver and port driver using this application, the administrator can save the file to the file server or send the file by e-mail to users. Then, each user just clicks that file to have the printer driver, port driver, IP address, and so on, automatically copied to their PC.

Network Print Software (For Windows®)

This installer includes the port monitors (Peer-to-Peer Printing software). They allow you to print through the network (LAN) under Windows®

Web BRAdmin (For Windows®)

The Web BRAdmin is designed to manage all LAN/WAN Brother network connected devices. By installing the Web BRAdmin server utility on a PC running IIS [1], administrators with a web browser can connect to the Web BRAdmin server, which then communicates with the device itself. Unlike the BRAdmin Professional, which is designed for Windows® systems only, the Web BRAdmin server utility can be accessed from any client PC with a web browser that supports Java 2.

You can download the Web BRAdmin from our web site. Visit us at http://solutions.brother.com.

[1] Internet Information Server 4.0 or 5.0

Web BRAdmin and Internet Information Server 4.0 are supported by the following operating systems:

- Windows NT® 4.0 Server

Web BRAdmin and Internet Information Service 5.0 are supported by the following operating systems:

- Windows® 2000 Server
- Windows® 2000 Advanced Server
- Windows® 2000 Professional

Web BRAdmin and Internet Information Service 5.1 are supported by the following operating systems:

- Windows® XP Professional

About emulation modes

This printer has the following emulation modes. You can change the setting using Remote Printer Console or a Web browser.

- HP LaserJet Mode

  The HP LaserJet mode (or HP mode) is the emulation mode in which this printer supports the PCL6 language of the Hewlett-Packard® LaserJet laser printer. Many applications support this type of laser printer. Using this mode will allow your printer to run at its best with those applications.

- BR-Script 3 Mode

  BR-Script is an original Brother page description language and a PostScript® language emulation interpreter. This printer supports level 3. The BR-Script interpreter of this printer allows you to control text and graphics on pages.

  For technical information about PostScript® commands, see the following manuals:

  - Adobe Systems Incorporated. PostScript® Language Reference, 3rd edition. Addison-Wesley Professional, 1999. ISBN: 0-201-37922-8
  - Adobe Systems Incorporated. PostScript® Language Program Design. Addison-Wesley Professional, 1988. ISBN: 0-201-14396-8
  - Adobe Systems Incorporated. PostScript® Language Tutorial and Cookbook. Addison-Wesley Professional, 1985. ISBN: 0-201-10179-3

- EPSON FX-850 and IBM Proprinter XL Mode

  The EPSON FX-850 and IBM Proprinter XL modes are the emulation modes that this printer supports to meet the industry-standard for dot matrix printers. Some applications support these dot matrix printer emulations. Use these emulation modes so your printer will work well when printing from those types of applications.

Automatic emulation selection

This printer has an automatic emulation selection feature that is turned on by default. This lets it automatically change the emulation mode to suit the type of data it receives.

You can change the setting using Remote Printer Console or a Web browser.

The printer can choose from the following combinations:

Setting 1 (default)	Setting 2
HP LaserJet	HP LaserJet
BR-Script 3	BR-Script 3
EPSON FX-850	IBM ProPrinter XL

Automatic interface selection

This printer has an automatic interface selection feature that is turned on by default. This lets it automatically change the interface to IEEE 1284 parallel, USB, or Ethernet depending on which interface is receiving data.

When you use the parallel interface, you can turn the high-speed and bi-directional parallel communications on or off by using Remote Printer Console. (See *Remote Printer Console* on this page.) Since the default setting is on for the automatic interface selection mode, simply connect the interface cable to the printer. Always turn off both your computer and printer when connecting or disconnecting the cable.

Note

This function takes a few seconds to work. If you want to speed up printing, choose the required interface manually by using Remote Printer Console. (See *Remote Printer Console* on this page.)

If you typically use only one interface, we recommend that you choose that interface using Remote Printer Console. (See *Remote Printer Console* on this page.). If only one interface is chosen, the printer will allocate the entire input buffer to that interface.

Remote Printer Console

Remote Printer Console is software to change many of the printer settings independently of your application. For example, you can change the settings for printer margin, sleep mode, character set and so on. These settings are then remembered and used by the printer.

How to use and install the Remote Printer Console software

To use the Remote Printer Console software, follow the steps below.

For Windows®

1. Put the CD-ROM into your CD-ROM drive and close the opening screen when it appears.
2. Open Windows® Explore and choose the CD-ROM drive.
3. Double-click the **RPC** folder.
4. Refer to the **RPC_User's_Guide.pdf** for how to install and use the Remote Printer Console.

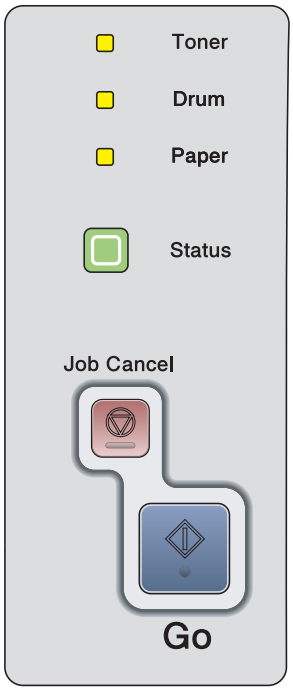
For Macintosh®

1. Put the CD-ROM into your CD-ROM drive. Double-click the **HL5200** icon on the desktop.
2. Double-click the **RPC** folder.
3. Refer to the **RPC_User's_Guide.pdf** for how to install and use the Remote Printer Console.

4 Control Panel

LEDs (Light Emitting Diodes)

This section refers to the four LEDs **Toner**, **Drum**, **Paper** and **Status**, and two buttons **Go** and **Job Cancel** on the control panel.

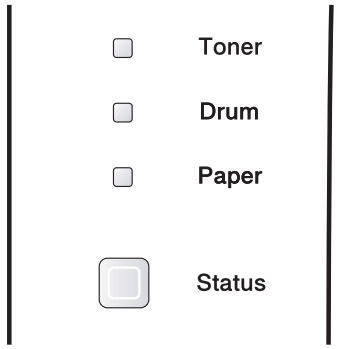
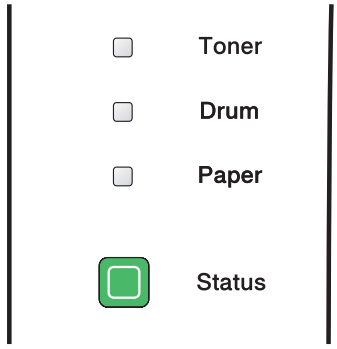
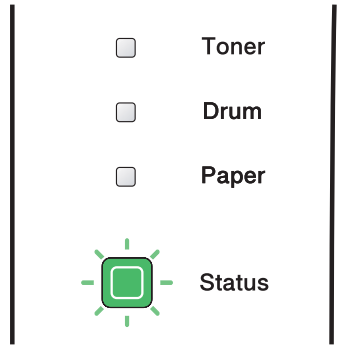
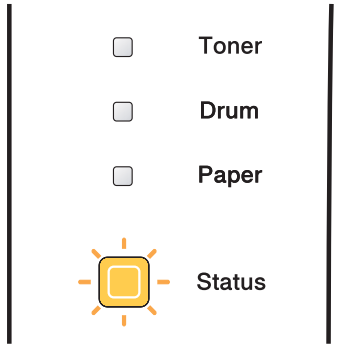


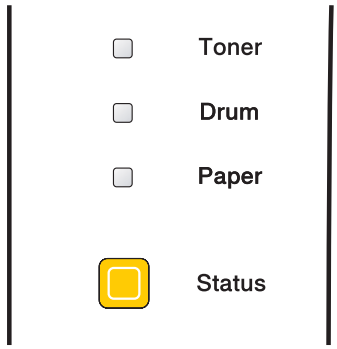
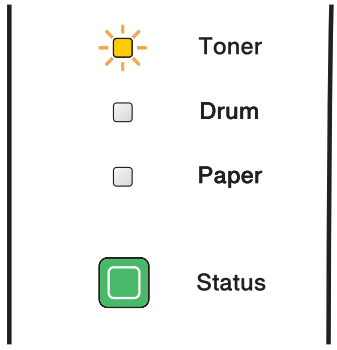
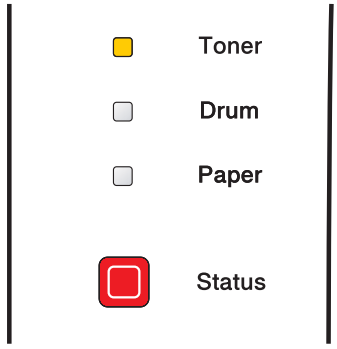
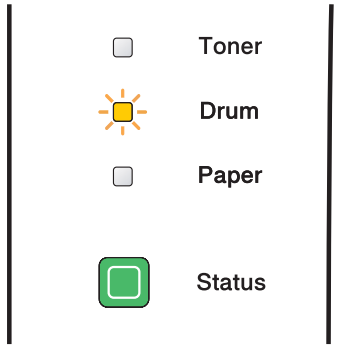
The LED indications shown in the table below are used in the illustrations in this chapter.

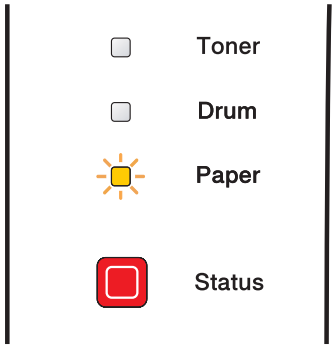
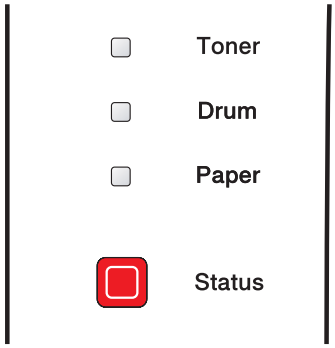
	LED is off.
	LED is on.
	LED is blinking.

Note

When the power switch is off or the printer is in sleep mode, all the LEDs are off.

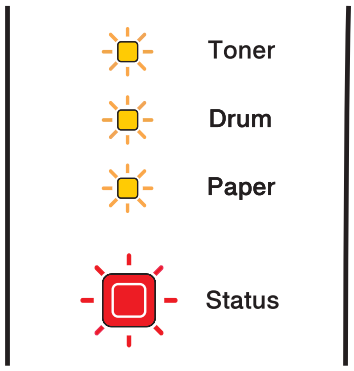
LED	Printer status
	**Sleep mode** The power switch is off or the printer is in sleep mode. Pressing **Go** wakes up the printer from sleep mode to ready mode.
	**Ready to print** The printer is ready to print.
	**Warming up** The printer is warming up. **Cooling down** The printer is cooling down. Wait for a few seconds until inside of the printer has cooled down.
	**Receiving data** The printer is either receiving data from the computer, processing data in memory or printing the data.

LED	Printer status
	**Data remaining in memory** There is remaining print data in the printer memory. If the yellow **Status** LED is on for a long time and nothing has printed, press **Go** to print the remaining data in memory.
	**Toner low** Indicates that the toner cartridge is nearly empty. Buy a new toner cartridge and have it ready for when **Toner life end** is indicated. The **Toner** LED will turn on for 2 seconds and off for 3 seconds.
	**Toner life end** Replace the toner cartridge with a new one. See *Replacing the toner cartridge* on page 6-3.
	Cartridge position error The drum unit assembly is not installed correctly. Take the drum unit out of the machine and put it back in.
	**Drum life end soon** The drum unit is near the end of its life. We recommend that you get a new drum unit to replace the current one. See *Replacing the drum unit* on page 6-8. The **Drum** LED will turn on for 2 seconds and off for 3 seconds.

LED	Printer status
	**No paper** Put paper in the tray. Then press **Go**. See *Printing on plain paper, bond paper and transparencies* on page 2-5 or *Printing on thick paper, labels and envelopes* on page 2-11.
	Paper jam Clear the paper jam. See *Paper jams and how to clear them* on page 7-6. If the printer does not start printing, press **Go**.
	Incorrect Paper size for Duplex (For HL-5250DN) Prees **Go** or **Job Cancel**. Set the correct paper that you want to use, or load the same size paper that you selected in the current driver setting. The paper size you can use for automatic duplex printing is A4, Letter or Legal.
	Duplex disabled Close the back cover of the printer and put the duplex tray back in.
	**Front cover is open** Close the front cover of the printer.
	Fuser cover is open Close the fuser cover which can be found behind the back cover of the printer.
	Dust on drum The corona wire needs to be cleaned. See *Cleaning the corona wire* on page 6-17.
	Too many trays Maximum number of optional trays is two. Remove additional trays.
	Buffer error Check the cable connection between the PC and printer.
	Memory full The printer memory is full and the printer cannot print full pages of a document. See *Solving print problems* on page 7-18.
	Print overrun A print overrun occurred and the printer cannot print full pages of a document. See *Solving print problems* on page 7-18.
	Download full The download buffer of the printer is full. Add more memory to the printer. See *Installing extra memory* on page 5-3.
	Font full The font memory area is full. Delete fonts or add more memory to the printer. See *Installing extra memory* on page 5-3.

Service call indications

If there is an error that cannot be cleared by the user, the printer will show that a service call is needed by lighting up all the LEDs as shown below.



If you see the service call indication shown above, turn off the power switch, wait a few seconds, and then turn it back on and try to print again.

If you cannot clear the error and see the same service call indication after turning the printer back on, call your dealer or a Brother authorized service representative.

When you press **Go** and **Job Cancel** buttons together, the LEDs will light up as shown in the table below to identify the error.

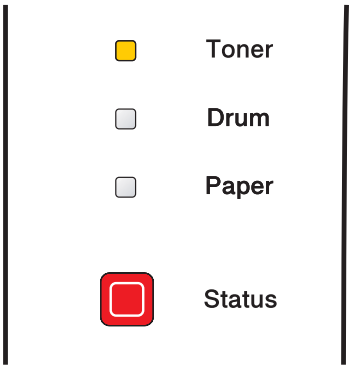
LED indications while pressing Go and Job Cancel

LEDs	Main PCB failure	Fuser unit failure [1]	Laser unit failure	Main motor failure	High voltage failure	DIMM error [2]
Toner	■	■	□	□	□	■
Drum	■	□	■	□	■	□
Paper	□	□	□	■	■	■
Status	■	■	■	■	■	■

[1] If this error occurs, turn off the printer power switch, wait a few seconds, and then turn it on again. Leave the printer for 10 minutes with the power on. If the error occurs again, call your dealer or Brother authorized service representative.

[2] If this error occurs, ensure that the DIMM is installed correctly. See *Installing extra memory* on page 5-3.

For example, the LED indication below shows a fuser unit failure.



Make a note of the indication and report the error status to your dealer or a Brother authorized service representative by referring to the above table.

Note

Make sure that the front cover is completely closed before you report a service call.

Control panel button

The control panel buttons have the following functions:

- **Cancel printing**

  If you press **Job Cancel** while printing, the printer will immediately stop printing and will then eject the paper.

- **Wake-up**

  If the printer is in sleep mode, press **Go** or **Job Cancel** to wake the printer up and go to the Ready state.

- **Error recovery**

  If there is an error, the printer will recover automatically from some errors. If an error is not automatically cleared, press **Go** to clear the error, and then continue to use the printer.

- **Form feed**

  If the yellow **Status** LED is on for a long time, press **Go**. The printer will print any remaining data in the printer memory.

- **Reprint**

  To reprint the last document, press **Go** and hold it down for about 4 seconds until all the LEDs light up in order (**Toner**, **Drum**, **Paper**, **Status**), and then release **Go**. Within 2 seconds press **Go** the number of times you want to reprint. If you don’t press **Go** within 2 seconds, a single copy will be printed.

Print a test page

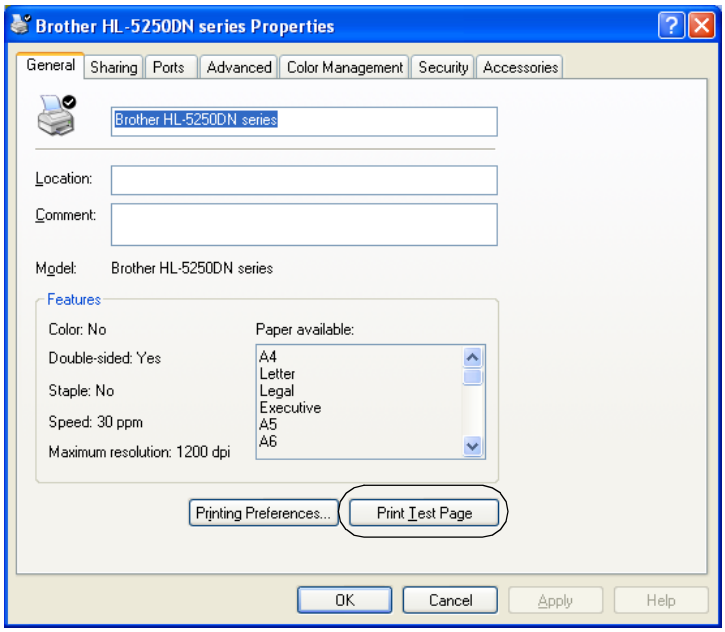
You can use the **Go** button or the printer driver to print a test page.

Using control panel button

1. Turn off the printer.
2. Make sure that the front cover is closed and the power cord is plugged in.
3. Hold down **Go** as you turn on the power switch. First all the LEDs will light up, and then the **Status** LED will turn off. Release **Go**. Make sure that all the LEDs have turned off.
4. Press **Go** again. The printer will print a test page.

Using the printer driver

If you are using Brother's Windows® printer driver, click the **Print Test Page** button in the **General** tab of the Windows® printer driver.



Print a Printer Settings page

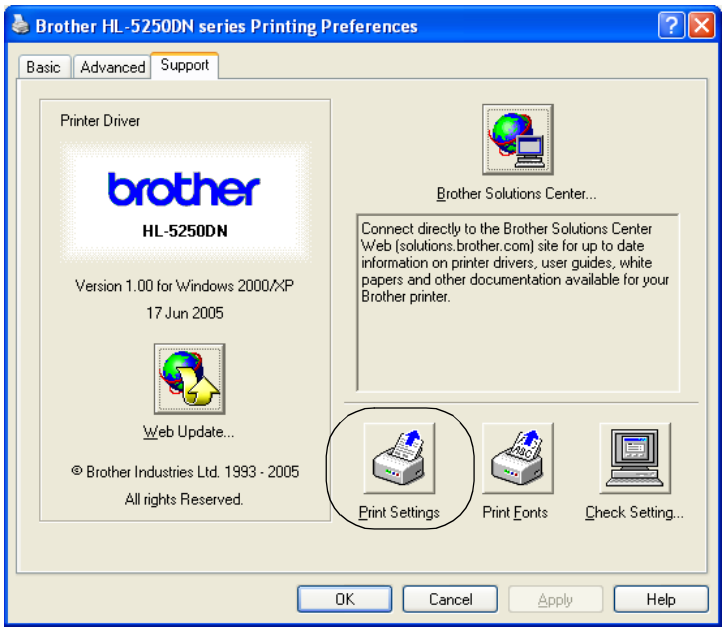
You can print the current settings using the control panel button or printer driver.

Using the control panel button

1. Make sure that the front cover is closed and the power cord is plugged in.
2. Turn on the printer and wait until the printer is in the ready state.
3. Press **Go** three times within 2 seconds. The printer will print the current printer settings page.

Using the printer driver

If you are using Brother's Windows® printer driver, you can print the current printer settings page by clicking the **Print Settings** button in the **Support** tab.



Print Fonts

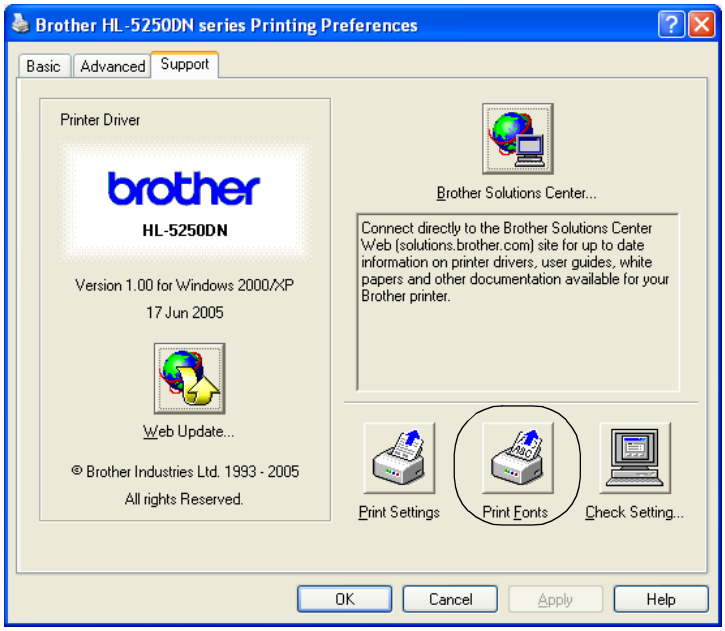
You can print a list of the internal fonts using the control panel button or printer driver.

Using the control panel button

1. Turn off the printer.
2. Make sure that the front cover is closed and the power cord is plugged in.
3. Hold down **Go** as you turn on the power switch. First all the LEDs will light up, and then the **Status** LED will turn off. Release **Go**. Make sure that all the LEDs have turned off.
4. Press **Go** twice. The printer will print a list of the internal fonts.

Using the printer driver

If you are using Brother's Windows® printer driver, you can print a list of the internal fonts by clicking the **Print Fonts** button in the **Support** tab.



Network default setting (For HL-5250DN)

If you want to reset the print server back to its default settings (resetting all information such as the password and IP address information), follow these steps:

1. Turn off the printer.
2. Make sure that the front cover is closed and the power cord is plugged in.
3. Hold down **Go** as you turn on the power switch. First all the LEDs will light up, and then the **Status** LED will turn off. Release **Go**. Make sure that all the LEDs have turned off.
4. Press **Go** six times. Make sure that all the LEDs light up to indicate the print server has been reset to its default settings.

Network default setting with APIPA protocol disabled (For HL-5250DN)

If you want to reset the print server back to its default settings with APIPA protocol disabled, follow these steps:

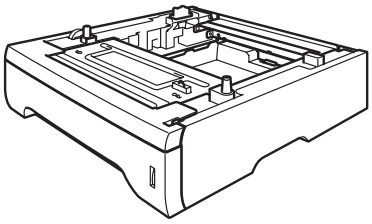
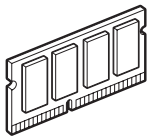
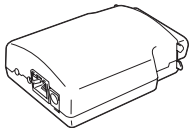
1. Turn off the printer.
2. Make sure that the front cover is closed and the power cord is plugged in.
3. Hold down **Go** as you turn on the power switch. First all the LEDs will light up, and then the **Status** LED will turn off. Release **Go**. Make sure that all the LEDs have turned off.
4. Press **Go** seven times. Make sure that all the LEDs light up to indicate the print server has been reset to its default settings.

Note

- For more information on APIPA, see the Network User's Guide.
- You can also disable the APIPA protocol using a web browser, BRAdmin Professional, BRAdmin Light or Web BRAdmin.

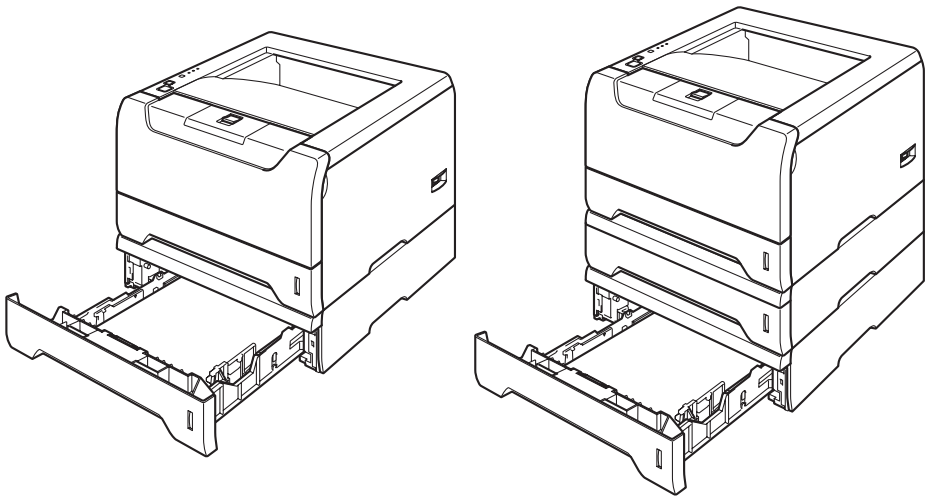
5 Options

This printer has the following optional accessories. You can increase the capabilities of the printer with these items.

Lower tray unit	**DIMM memory**	**Print server (For HL-5240)**
LT-5300		**NC-2100p**
		
See *Lower tray unit (LT-5300)* on this page.	See *DIMM* on page 5-2. And See *Installing extra memory* on page 5-3.	See *Print server (NC-2100p) (For HL-5240)* on page 5-5.

Lower tray unit (LT-5300)

Two optional lower trays (Tray 2 or Tray 3) can be installed, and each lower tray can hold up to 250 sheets of 80 g/m^2 (21 lb) paper.
When both optional trays are installed, the printer can hold up to 800 sheets of plain paper. If you want to buy an optional lower tray unit, call the dealer you bought the printer from.



For setup, see the User's Guide that we have supplied with the lower tray unit.

DIMM

For HL-5240

The HL-5240 printer has 16 MB of standard memory and one slot for optional memory expansion. You can expand the memory up to 528 MB by installing dual in-line memory modules (DIMMs).

For HL-5250DN

The HL-5250DN printer has 32 MB of standard memory and one slot for optional memory expansion. You can expand the memory up to 544 MB by installing dual in-line memory modules (DIMMs).

DIMM types

You can install the following DIMMs:

- 128 MB Buffalo Technology VN133-D128 / VN133-X128
- 256 MB Buffalo Technology VN133-D256
- 512 MB Buffalo Technology VN133-D512
- 64 MB TechWorks 12165-0004
- 128 MB TechWorks 12462-0001
- 256 MB TechWorks 12485-0001
- 512 MB TechWorks 12475-0001

Note

- For more information, visit the Buffalo Techonology site at http://www.buffalotech.com.
- For more information, visit the Techworks web site at http://www.techworks.com.

In general, the DIMM must have the following specifications:

Type: 144 pin and 64 bit output

CAS latency: 2

Clock frequency: 100 MHz or more

Capacity: 64, 128, 256 or 512 MB

Height: 31.75 mm (1.25 in.)

Dram Type: SDRAM 2 Bank

SDRAM can be used.

Note

- There might be some DIMMs that will not work with the printer.
- For more information, call the dealer you bought the printer from or Brother Customer Service.

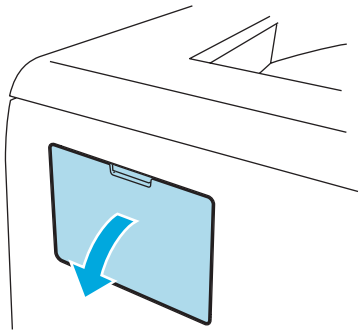
Installing extra memory

1. Turn off the printer power switch, and then unplug the printer. Disconnect the interface cable from the printer.

Note

Be sure to turn off the printer power switch before you install or remove the DIMM.

2. Remove the DIMM cover.

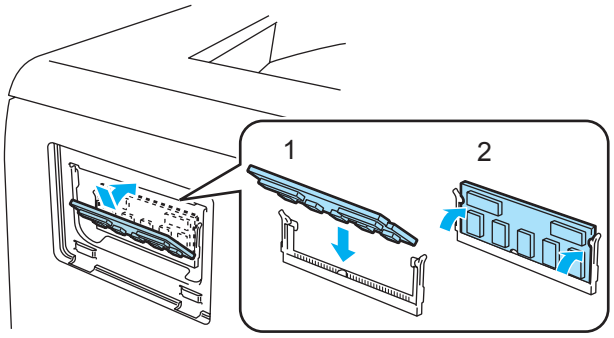


3. Unpack the DIMM and hold it by its edges.

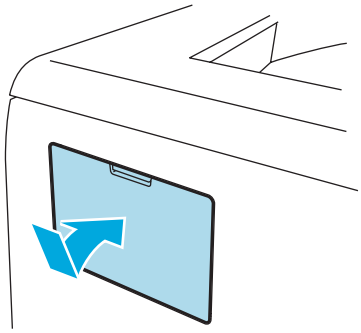
CAUTION

To prevent damage to the printer from static electricity, DO NOT touch the memory chips or the board surface.

4. Hold the DIMM by the edges and align the notches in the DIMM with the protrusions in the slot. Insert the DIMM diagonally (1), then tilt it toward the interface board until it click into place (2).



5 Put the DIMM cover back on.



6 Reconnect the interface cable to your printer. Plug the printer back in, and then turn on the power switch.

Note

To make sure that you have installed the DIMM properly, you can print the printer settings page that shows the current memory size. See *Print a Printer Settings page* on page 4-9.

Print server (NC-2100p) (For HL-5240)

An optional network print server (NC-2100p) allows you to connect to your network through the parallel interface.

Network interface	10/100BASE-TX Ethernet
Printer interface	Parallel
Support protocol	TCP/IP, NetBEUI
Management features	Embedded web server support
	SNMP / MIB support
	TELNET remote console
	BRAdmin Professional compatible
	Flash memory for easy updating of firmware

Note

HL-5250DN already has a built-in 10/100BASE-TX Ethernet Print Server.

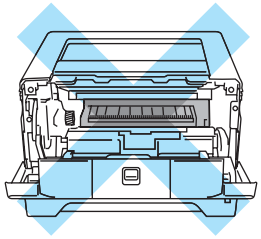
6 Routine Maintenance

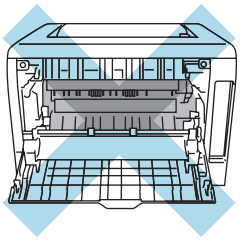
You will need to replace certain parts and clean the printer regularly.

WARNING

When you replace certain parts or clean the inside of the printer, remember the following:

- If your clothes are smeared with toner, wipe off the toner with a dry cloth and immediately wash the clothes in cold water to avoid stains.
- Be careful not to inhale toner.
- After you have just used the printer, some internal parts of the printer will be extremely hot. When you open the front cover or back cover of the printer, DO NOT touch the shaded parts shown in the illustration.





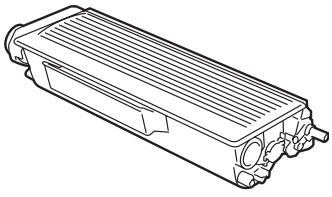
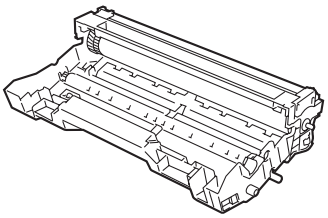
Replacing the consumable items

You will need to replace the consumable items regularly.

Note

These instructions are also included in *Improving the print quality* on page 7-13.

Consumables

Toner Cartridge	Drum Unit
	
See *Toner cartridge* on page 6-2.	See *Drum unit* on page 6-8.

Toner cartridge

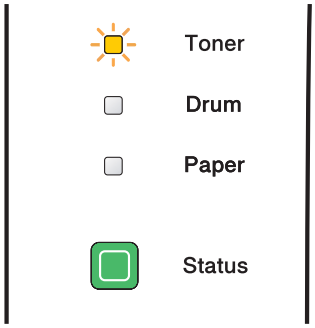
A new toner cartridge can print approximately 3,500 (standard cartridge) or approximately 7,000 (high yield cartridge) A4 or Letter size single-sided pages at 5% coverage.

Note

- The amount of toner used varies according to what is printed on the page and the print density setting.
- If you change the print density setting for lighter or darker printing, the amount of toner used will change.
- Wait to unpack the toner cartridge until immediately before you put it into the printer.

Toner Low message

The **Toner** LED will turn on for 2 seconds and off for 3 seconds.



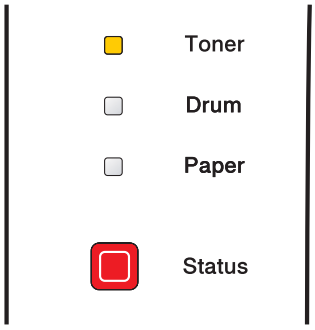
If the LED shows this message, the printer has nearly run out of toner. Buy a new toner cartridge and have it ready before you get a Toner Life End message. To replace the toner cartridge, see *Replacing the toner cartridge* on page 6-3.

Note

The **Toner** LED will blink continuously if the toner cartridge is nearly empty.

Toner Life End message

The printer will stop printing until you replace the toner cartridge with a new one.

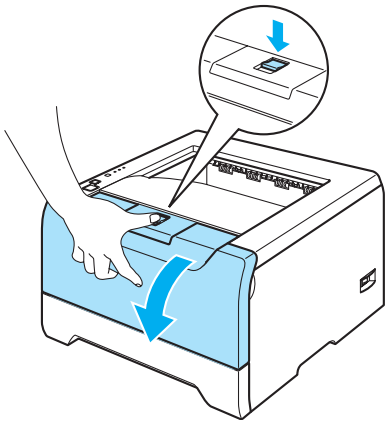


Replacing the toner cartridge

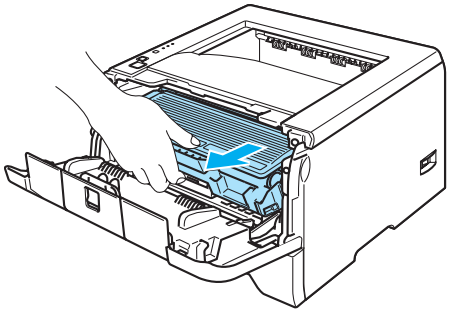
Note

- To ensure high quality printing, we recommend that you use only genuine Brother toner cartridges. When you want to buy toner cartridges, call the dealer you bought the printer from or Brother Customer Service.
- We recommend that you clean the printer when you replace the toner cartridge. See *Cleaning* on page 6-13.

1. Press the front cover release button and then open the front cover.



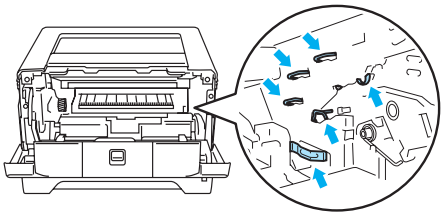
2. Take out the drum unit and toner cartridge assembly.



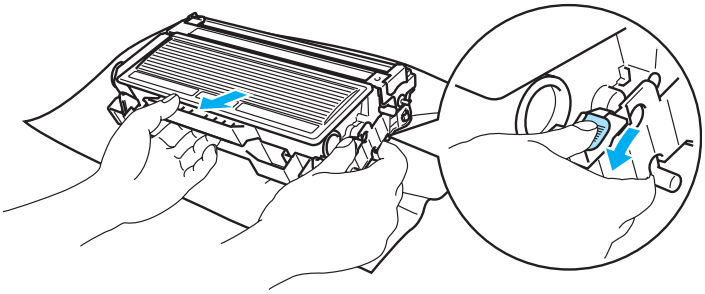
CAUTION

We recommend that you put the drum unit and toner cartridge assembly on a piece of disposable paper or cloth in case you accidentally spill or scatter toner.

To prevent damage to the printer from static electricity, DO NOT touch the electrodes shown in the illustration.



3 Push down the blue lock lever and take the toner cartridge out of the drum unit.

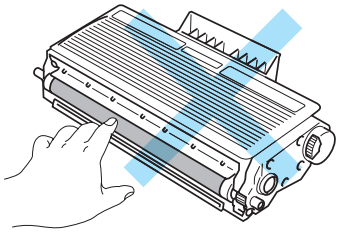


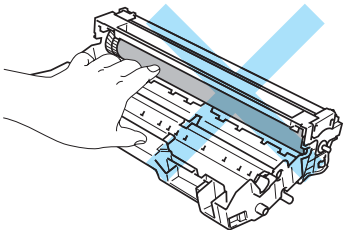
CAUTION

DO NOT put a toner cartridge into a fire. It could explode, resulting in injuries.

Handle the toner cartridge carefully. If toner scatters on your hands or clothes, wipe or wash it off with cold water at once.

To avoid print quality problems, DO NOT touch the shaded parts shown in the illustrations.

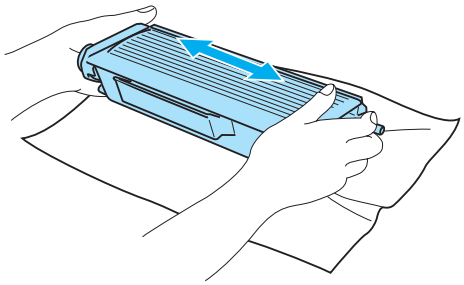




Note

- Be sure to seal up the toner cartridge tightly in a bag so that toner powder does not spill out of the cartridge.
- Discard the used toner cartridge according to local regulations, keeping it separate from domestic waste. If you have questions, call your local waste disposal office.

4 Unpack the new toner cartridge. Hold the cartridge level with both hands and gently rock it from side to side five or six times to spread the toner evenly inside the cartridge.

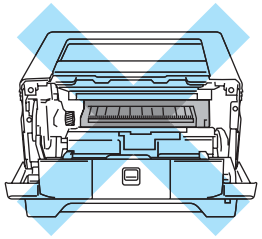


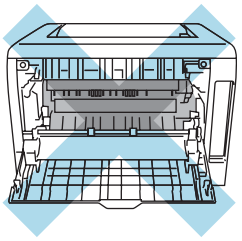
CAUTION

Wait to unpack the toner cartridge until immediately before you put it in the printer. If toner cartridges are left unpacked for a long time the toner life will be shortened.

If an unpacked drum unit is put in direct sunlight or room light, the unit may be damaged.

Put the toner cartridge in the drum unit immediately after you have removed the protective cover. To prevent any degradation to the print quality, DO NOT touch the shaded parts shown in the illustrations.





CAUTION

For USA and Canada

Brother strongly recommends that you do not refill the toner cartridge provided with your printer. We also strongly recommend that you continue to use only genuine Brother brand replacement toner cartridges. Use or attempted use of potentially incompatible toner and/or cartridges in the Brother machine may cause damage to the machine and/or may result in unsatisfactory print quality. Our warranty coverage does not apply to any problem that is caused by the use of unauthorized third party toner and/or cartridges. To protect your investment and obtain premium performance from the Brother machine, we strongly recommend the use of genuine Brother supplies.

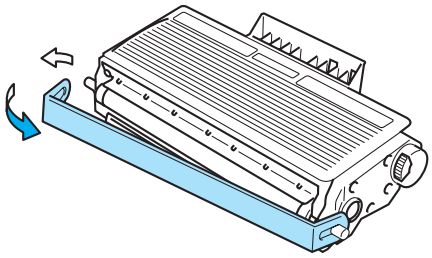
CAUTION

For UK and countries

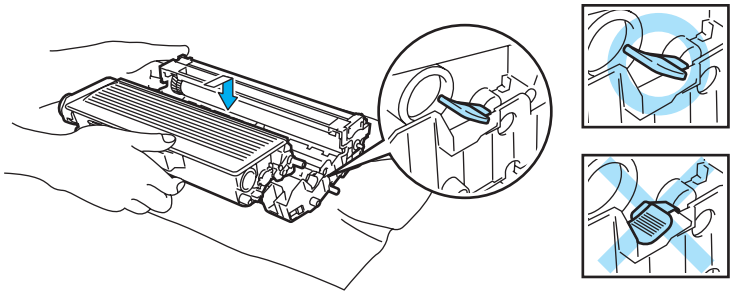
Brother machines are designed to work with toner of a particular specification and will work to a level of optimum performance when used with genuine Brother branded toner cartridges. Brother cannot guarantee this optimum performance if toner or toner cartridges of other specifications are used. Brother does not therefore recommend the use of cartridges other than genuine Brother branded cartridges with this machine.

If damage is caused to the drum unit or other part of this machine as a result of using other manufacturer's products with this machine, any repairs required as a result may not be covered by the warranty.

5 Pull off the protective cover.



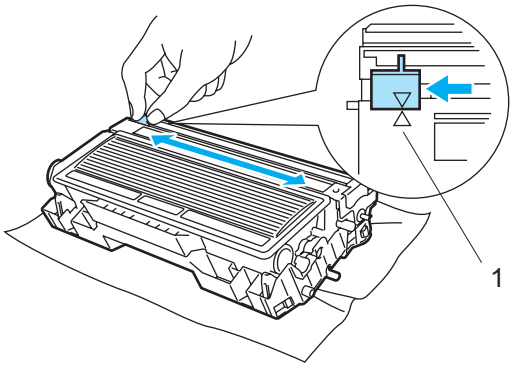
6 Put the new toner cartridge firmly into the drum unit until you hear it lock into place. If you put it in properly, the lock lever will lift automatically.



CAUTION

Make sure that you put in the toner cartridge properly or it may separate from the drum unit.

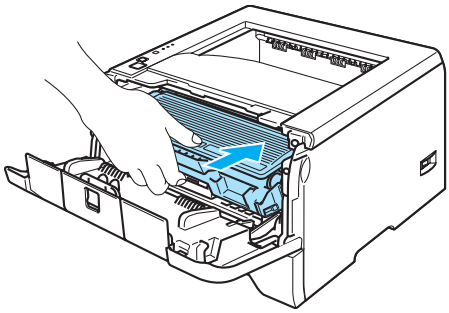
7 Clean the primary corona wire inside the drum unit by gently sliding the blue tab from right to left and left to right several times.



CAUTION

Be sure to return the tab to the home position (▲) (1). If you do not, printed pages may have a vertical stripe.

8 Put the drum unit and toner cartridge assembly back in the printer. Close the front cover.



Drum unit

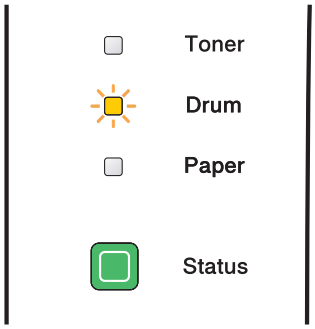
A new drum unit can print approximately 25,000 A4 or Letter size single-sided pages at 5% coverage.

Note

- There are many factors that determine the actual drum life, such as the temperature, humidity, type of paper, type of toner used, number of pages per print job and so on. Under ideal conditions, the average drum life is estimated at approximately 25,000 pages. The actual number of pages that your drum will print may be significantly less than this estimate. Because we have no control over the many factors that determine the actual drum life, we cannot guarantee a minimum number of pages that will be printed by your drum.
- For best performance, use only genuine Brother toner. The printer should be used only in a clean, dust-free environment with adequate ventilation.
- Printing with a third-party drum unit may reduce not only the print quality but also the quality and life of the printer itself. Warranty coverage does not apply to problems caused by the use of a third-party drum unit.

Change Drum message

If the LED shows the message below, it means the drum unit is near the end of its life. We recommend that you replace the drum unit with a new one before there is a noticeable deterioration in the print quality.



Replacing the drum unit

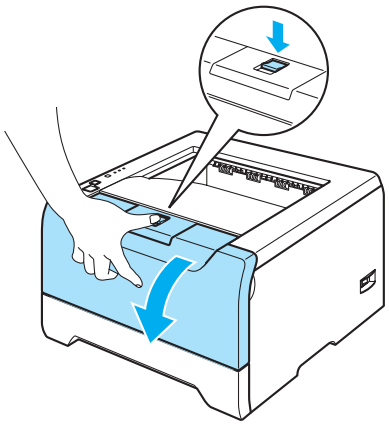
CAUTION

While removing the drum unit, handle it carefully because it may contain toner.

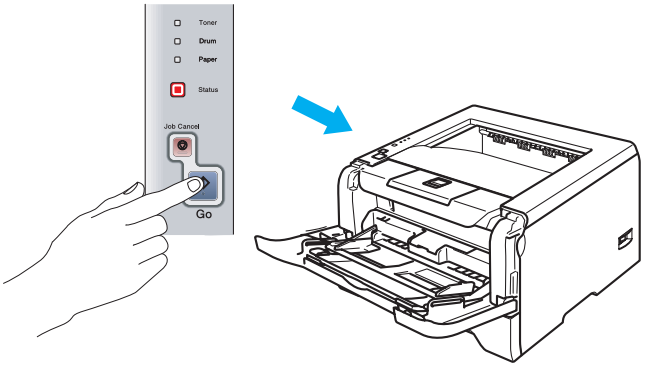
Every time you replace the drum unit, clean the inside of the printer. See *Cleaning* on page 6-13.

When you replace the drum unit with a new one, you need to reset the drum counter by completing the following steps:

1. Make sure that the printer is turned on and the **Drum** LED is blinking. Press the front cover release button and then open the front cover.



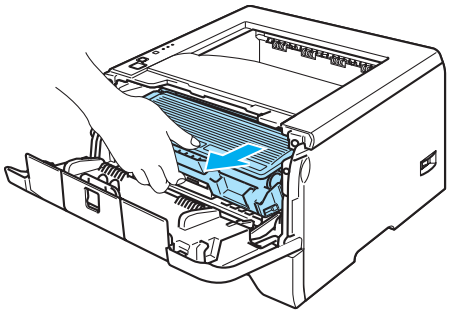
2. Press and hold down **Go** for about 4 seconds until all the LEDs light up. Once all four LEDs are lit, release **Go**.



Improper Setup

Do not reset the drum counter when you only replace the toner cartridge.

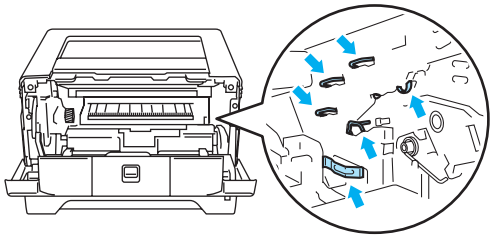
3. Take out the drum unit and toner cartridge assembly.



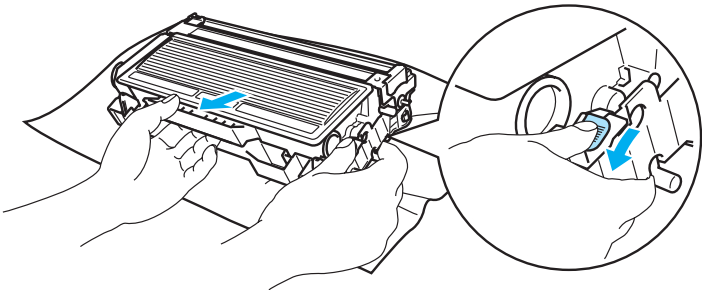
CAUTION

We recommend that you put the drum unit and toner cartridge assembly on a piece of disposable paper or cloth in case you accidentally spill or scatter toner.

To prevent damage to the printer from static electricity, DO NOT touch the electrodes shown in the illustration.



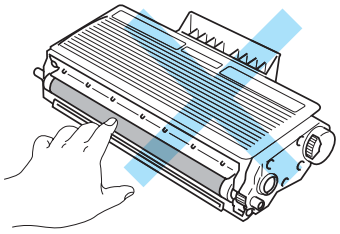
4 Push down the blue lock lever and take the toner cartridge out of the drum unit.

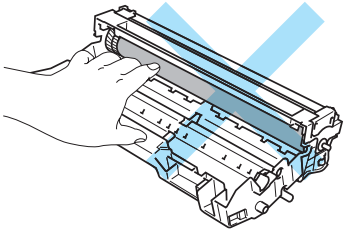


CAUTION

Handle the toner cartridge carefully. If toner scatters on your hands or clothes, wipe or wash it off with cold water at once.

To avoid print quality problems, DO NOT touch the shaded parts shown in the illustrations.





Note

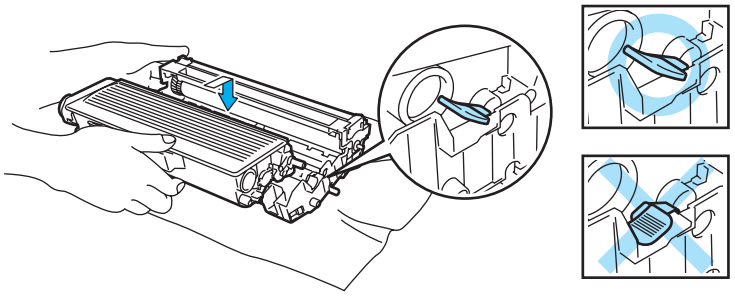
- Be sure to seal up the drum unit tightly in a bag so that toner powder does not spill out of the unit.
- Discard the used drum unit according to local regulations, keeping it separate from domestic waste. If you have questions, call your local waste disposal office.

5 Unpack the new drum unit.

CAUTION

Wait to unpack a drum unit until immediately before you put it in the printer. Exposure to direct sunlight or room light may damage the drum unit.

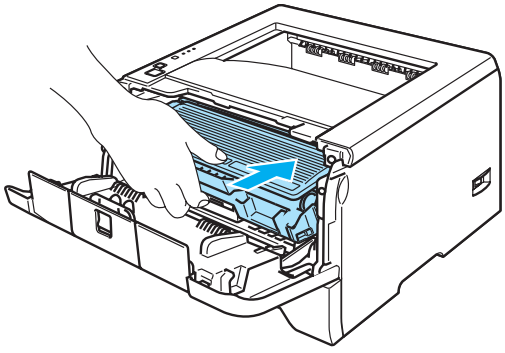
6 Put the toner cartridge firmly into the new drum unit until you hear it lock into place. If you put the cartridge in properly, the blue lock lever will lift automatically.



CAUTION

Make sure that you put in the toner cartridge properly, or it may separate from the drum unit.

7 Put the drum unit and toner cartridge assembly back in the printer.



8 Close the front cover.

9 Make sure that the **Drum** LED is now off.

Replacing periodic maintenance parts

You need to replace the periodic maintenance parts regularly to maintain print quality. You should replace the parts listed below after printing the following number of pages.

Item	Approximate Life	To Buy Replacement
Separator pad holder assembly	100,000 pages [1]	Call Brother Customer Service
Pick up roller assembly	100,000 pages [1]	Call Brother Customer Service
Laser unit	100,000 pages [1]	Call Brother Customer Service
Fuser unit	100,000 pages [1]	Call Brother Customer Service

[1] At 5% print coverage (A4 or Letter size). The actual number of printed pages will vary depending on the print jobs and paper you use.

Cleaning

Clean the outside and inside of the printer regularly with a dry, lint-free cloth. When you replace the toner cartridge or the drum unit, make sure that you clean the inside of the printer. If printed pages are stained with toner, clean the inside of the printer with a dry, lint-free cloth.

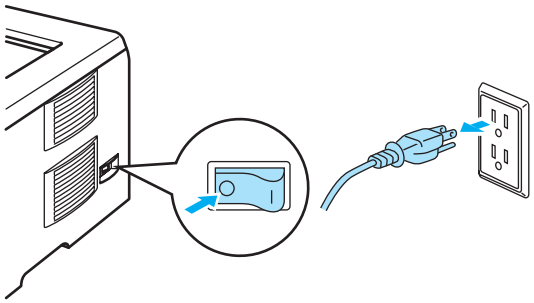
Cleaning the outside of the printer

CAUTION

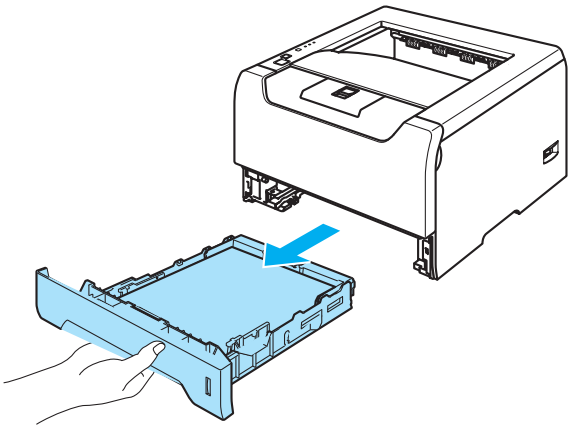
Use neutral detergents. Cleaning with volatile liquids such as thinner or benzine will damage the surface of the printer.

DO NOT use cleaning materials that contain ammonia.

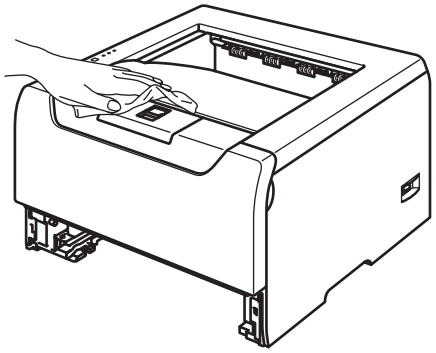
1. Turn off the printer power switch and then unplug the printer.



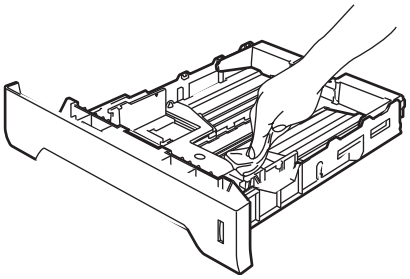
2. Pull the paper tray completely out of the printer.



3. Wipe the outside of the printer with a dry, lint-free cloth to remove dust.



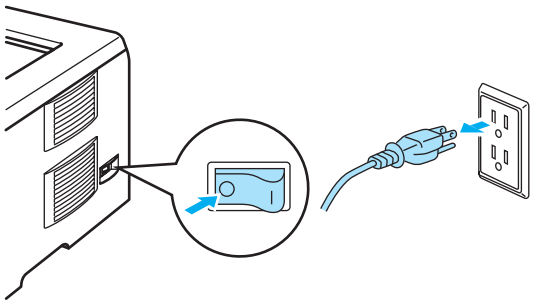
4. Remove anything that is stuck inside the paper tray.
5. Wipe the inside of the paper tray with a dry, lint-free cloth to remove dust.



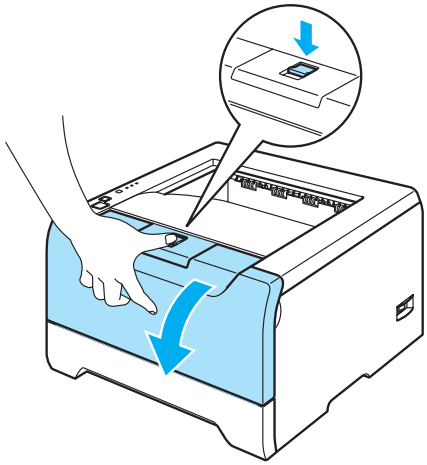
6. Put the paper tray back in the printer.
7. Plug the printer back in, and then turn on the power switch.

Cleaning the inside of the printer

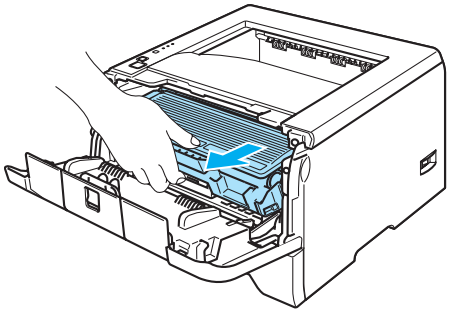
1. Turn off the printer power switch and then unplug the printer.



2 Press the front cover release button and then open the front cover.

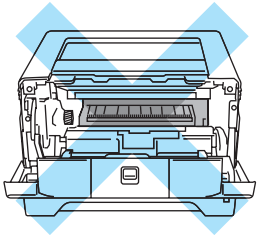


3 Take out the drum unit and toner cartridge assembly.



HOT SURFACE

After you have just used the printer, some internal parts of the printer will be extremely hot. Wait for the printer to cool down before you touch the internal parts of the printer.

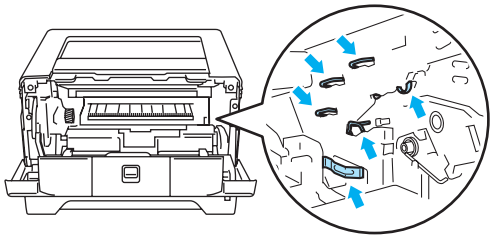


CAUTION

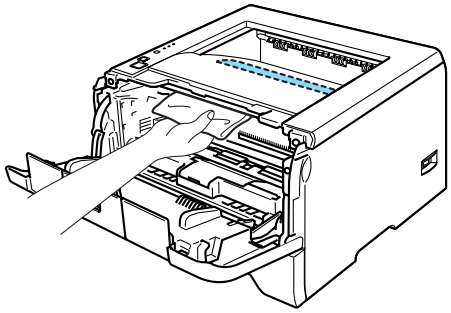
We recommend that you put the drum unit and toner cartridge assembly on a piece of disposable paper or cloth in case you accidentally spill or scatter toner.

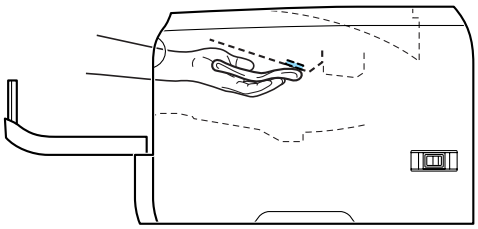
Handle the toner cartridge carefully. If toner scatters on your hands or clothes, wipe or wash it off with cold water at once.

To prevent damage to the printer from static electricity, DO NOT touch the electrodes shown in the illustration.



4. Wipe the scanner window with a dry, lint-free cloth.



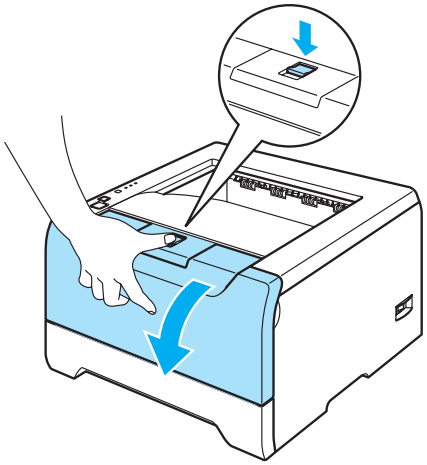


5. Put the drum unit and toner cartridge assembly back in the printer.
6. Close the front cover.
7. Plug the printer back in, and then turn on the power switch.

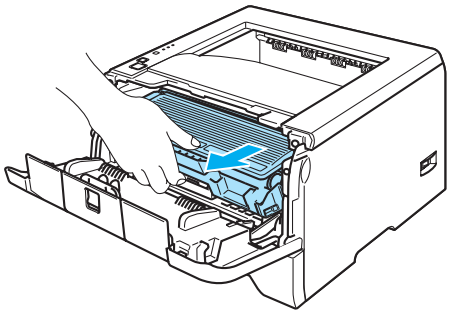
Cleaning the corona wire

If you have print quality problems, clean the corona wire as follows:

1. Press the front cover release button and then open the front cover.



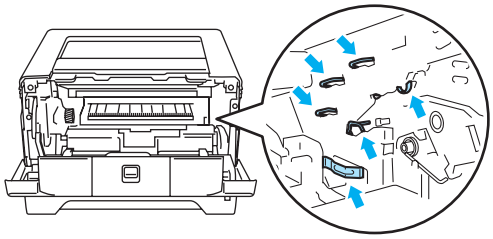
2. Take out the drum unit and toner cartridge assembly.



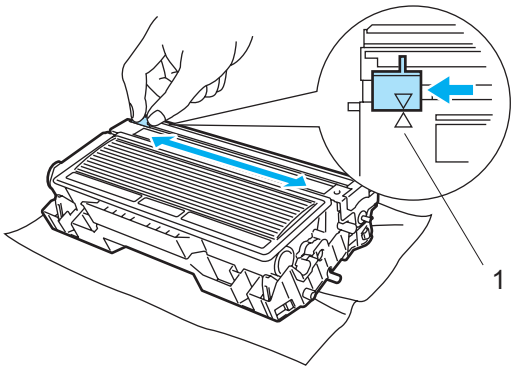
CAUTION

We recommend that you put the drum unit and toner cartridge assembly on a piece of disposable paper or cloth in case you accidentally spill or scatter toner.

To prevent damage to the printer from static electricity, DO NOT touch the electrodes shown in the illustration.



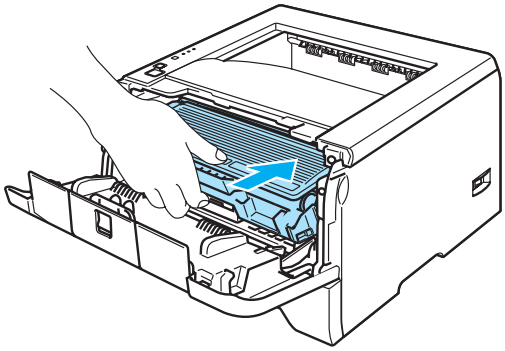
3 Clean the primary corona wire inside the drum unit by gently sliding the blue tab from right to left and left to right several times.



CAUTION

Be sure to return the tab to the home position (▲) (1). If you do not, printed pages may have a vertical stripe.

4 Put the drum unit and toner cartridge assembly back in the printer. Close the front cover.



7 Troubleshooting

You can correct most problems by yourself. If you need additional help, the Brother Solutions Center offers the latest FAQs and troubleshooting tips. Visit us at http://solutions.brother.com.

Identifying your problem

First, check the following:

- The AC power cord is connected properly and the printer is turned on.
- All of the protective parts have been removed.
- The toner cartridge and drum unit are installed properly.
- The front cover is fully closed.
- Paper is inserted properly in the paper tray.
- The interface cable is securely connected to the printer and the computer.
- The correct driver for the printer has been chosen and is installed.
- The PC is set up to connect to the correct printer port.

Printer does not print:

If you did not solve your problem with the above checks, identify your problem and then go to the page suggested below.

- **Printer LED is blinking**

  See *LEDs (Light Emitting Diodes)* on page 4-1.

- **Status Monitor Error Message appears**

  See *Error messages in the Status Monitor* on page 7-2.

- **Printer printed an Error Message**

  See *Error message printout* on page 7-4.

- **Paper handling**

  See *Paper handling* on page 7-5 and *Paper jams and how to clear them* on page 7-6.

- **Other problems**

  See *Other problems* on page 7-19.

Pages are printed, but there are problems with:

- **Print quality**

  See *Improving the print quality* on page 7-13.

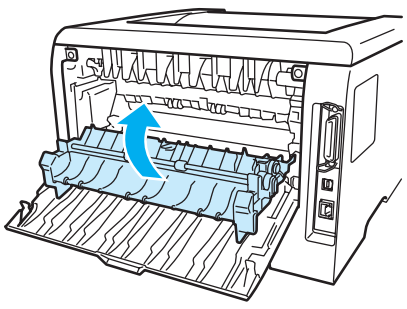
- **Printout is incorrect**

  See *Solving print problems* on page 7-18.

Error messages in the Status Monitor

The Status Monitor will report problems with the printer. Take the proper action by referring to the following table.

The default setting for the Status Monitor is off. If you want to turn the status monitor on, you can change the setting of the Status Monitor in **Device Options** from the **Advanced** tab. See Device Options on page 3-6.

Error message	Action
Toner Low	■ Buy a new toner cartridge and have it ready for when the **Toner Life End** status is indicated.
Toner Life End	■ See *Replacing the toner cartridge* on page 6-3.
Cartridge Position Error	■ Put the drum unit assembly back in.
Drum Life End Soon	■ The drum unit is near the end of its life. Buy a new drum unit to replace the current one. See *Replacing the drum unit* on page 6-8.
No Paper **No Paper for Manual Feed** **No Paper in the Multi Purpose Tray** **No Paper MP or Size Mismatch** **No Paper in Tray 1/2/3** **No Paper in Tray 1/2/3 or Size Mismatch**	■ The paper tray may be out of paper or not properly installed. If it is empty, put a new stack of paper in the paper tray and then press **Go**. ■ If there is paper in the paper tray, make sure it is straight. If the paper is curled, straighten it before printing. Sometimes it is helpful to remove the paper, turn the stack over and put it back in the paper tray. ■ Cut the amount of paper in the paper tray, and then try again. ■ Make sure you use paper that meets Brother's recommended paper specifications. See *About paper* on page 2-1. ■ Load the same size paper that you selected in the current driver setting.
Jam MP Tray **Jam Tray 1/2/3** **Jam Inside** **Jam Rear** **Jam Duplex**	■ Clear the jammed paper from the indicated area. See *Paper jams and how to clear them* on page 7-6.
Incorrect Paper Size for Auto DX	■ Press **Go** or **Job Cancel**. Set the correct paper that you want to use, or load the same size paper that you selected in the current driver setting. The paper size you can use for automatic duplex printing is A4, Letter or Legal.
Duplex Disabled	■ Close the back cover of the printer and put the duplex tray back in.
Front Cover is Open	■ Close the front cover of the printer.
Fuser Cover is Open	■ Close the fuser cover located behind the back cover of the printer. 

Error message	Action
Dust On Drum	■ See *Cleaning the corona wire* on page 6-17.
Memory Full	■ Press **Go** to print the remaining data in the printer memory. Cancel the print job if you want to delete the remaining data in the printer memory. See *Control panel button* on page 4-7. ■ Reduce the complexity of your document or cut the print resolution. ■ Add more memory. See *Installing extra memory* on page 5-3.
Print Overrun	■ Press **Go** to print the remaining data in the printer memory. Cancel the print job if you want to delete the remaining data in the printer memory. See *Control panel button* on page 4-7. ■ If this does not clear the error, reduce the complexity of your document or cut the print resolution. ■ Add more memory. See *Installing extra memory* on page 5-3. ■ Set page protection to **AUTO** by using the supplied Windows® driver or Remote Printer Console program. ■ Change the following settings in the supplied Windows® driver and try again. The best combination of these settings will vary depending on your document: • Graphics mode • TrueType mode • Use Printer TrueType® Fonts
Service Call Error	■ Check the LED indication to identify the error. See *Service call indications* on page 4-5.

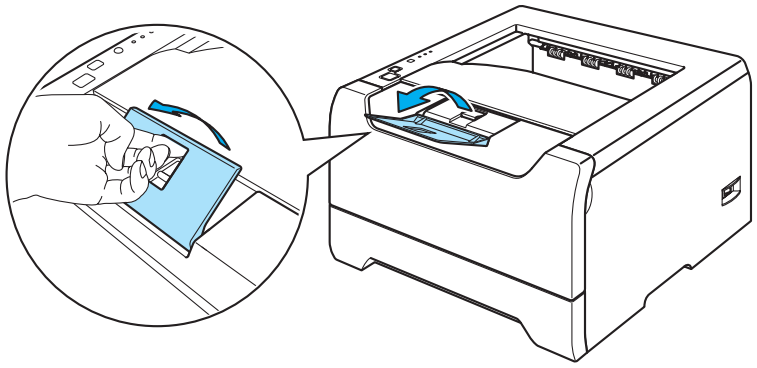
Error message printout

The printer can also report problems by printing an error message. Use the table below to identify and clear the error message.

Error message	Action
MEMORY FULL	■ Press **Go** to print the remaining data in the printer memory. Cancel the print job if you want to delete the remaining data in the printer memory. See *Control panel button* on page 4-7. ■ Reduce the complexity of your document or cut the print resolution. ■ Add more memory. See *Installing extra memory* on page 5-3
PRINT OVERRUN	■ Press **Go** to print the remaining data in the printer memory. Cancel the print job if you want to delete the remaining data in the printer memory. See *Control panel button* on page 4-7. ■ If this does not clear the error, reduce the complexity of your document or cut the print resolution. ■ Add more memory. See *Installing extra memory* on page 5-3. ■ Set page protection to **AUTO** by using the supplied Windows® driver or Remote Printer Console program. ■ Change the following settings in the supplied Windows® driver and try again. The best combination of these settings will vary depending on your document: • Graphics mode • TrueType mode • Use Printer TrueType® Fonts
RESOLUTION REDUCED TO ENABLE PRINTING (The printer has printed the document at a reduced resolution)	■ Reduce the complexity of your document before you print to prevent automatic reduction in the resolution.

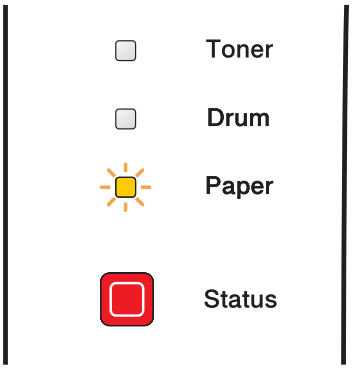
Paper handling

First, make sure that you are using paper that meets Brother recommended paper specifications. See *About paper* on page 2-1.

Problem	Recommendation
The printer does not feed paper.	■ If there is paper in the paper tray, make sure it is straight. If the paper is curled, straighten it before printing. Sometimes it is helpful to remove the paper. Turn the stack over and put it back in the paper tray. ■ Cut the amount of paper in the paper tray, and then try again. ■ Make sure that manual feed mode is not chosen in the printer driver.
The printer does not feed paper from the MP tray.	■ Fan the paper well and put it back in firmly. ■ Make sure that you have chosen the **MP Tray** in the Paper Source of the printer driver.
The printer does not feed envelopes.	■ The printer can feed envelopes from the multi-purpose tray. You must set up your application to print on the size of envelopes you are using. This is usually done in the page setup or document setup menu of your software. See your application manual.
A paper jam has occurred.	■ Clear the jammed paper. See *Paper jams and how to clear them* on page 7-6.
The printer does not print.	■ Make sure that the cable is connected to the printer. ■ Make sure that you have chosen the proper printer driver.
When printing on normal paper, it creases.	■ Change the printer driver setting in **Media Type** to a thin setting.
When printing on Legal size paper or longer sized paper, the paper slides off the top output tray.	■ Pull out and lift up the output tray support flap. 

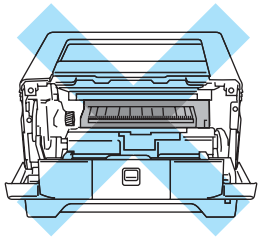
Paper jams and how to clear them

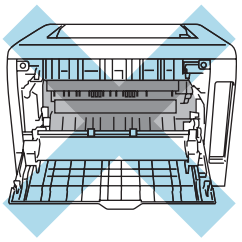
If a paper jam occurs, the printer will flash the Paper LED as shown below.



HOT SURFACE

After you have just used the printer, some internal parts of the printer will be extremely hot. When you open the front cover or back cover of the printer, DO NOT touch the shaded parts shown in the illustrations.





Clear the jammed paper as follows.

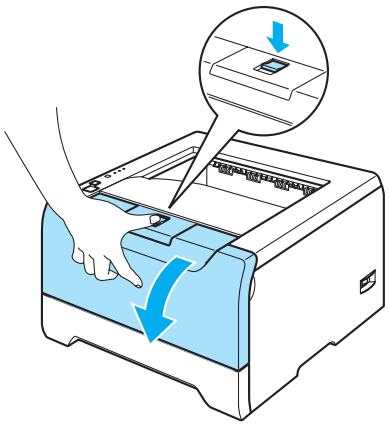
If the jammed paper is removed completely by following the steps below, you can install the paper tray first, and then close the front cover. The printer will resume printing automatically.

If the printer does not start printing automatically, press **Go**. If the printer still does not start printing, check that all the remaining jammed paper has been removed from the printer. Then try printing again.

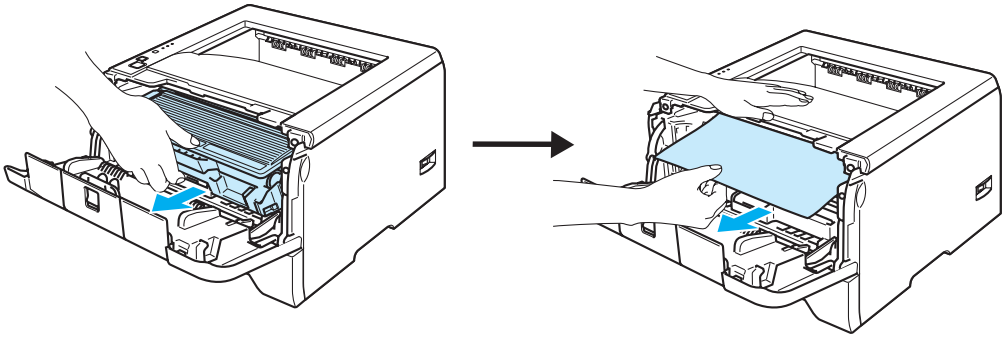
Note

Always remove all paper from the paper tray and straighten the stack when you add new paper. This helps prevent multiple sheets of paper from feeding through the printer at one time and prevents paper jams.

1. Press the cover release button and then open the front cover.

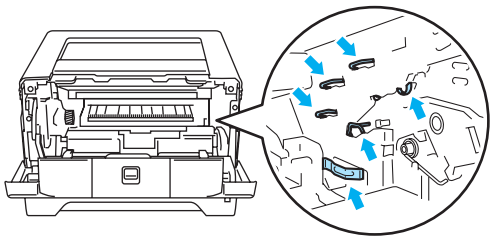


2. Slowly take out the drum unit and toner cartridge assembly. The jammed paper will be pulled out with the drum unit and toner cartridge assembly.

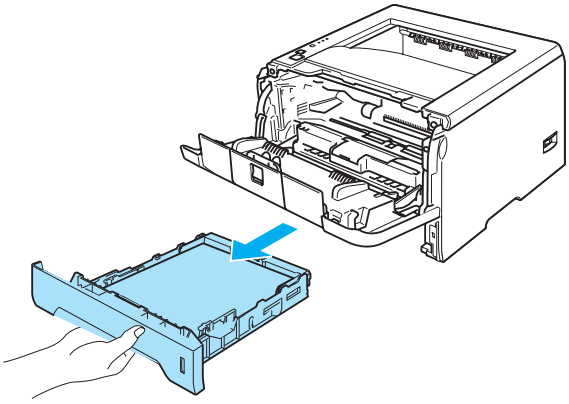


CAUTION

To prevent damage to the printer caused by static electricity, DO NOT touch the electrodes shown in the illustration.

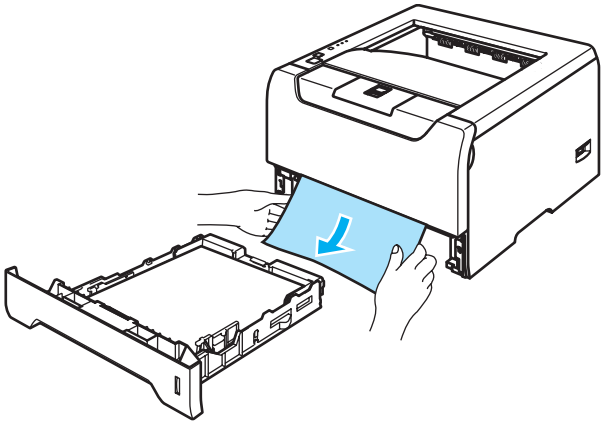


3 Pull the paper tray completely out of the printer.

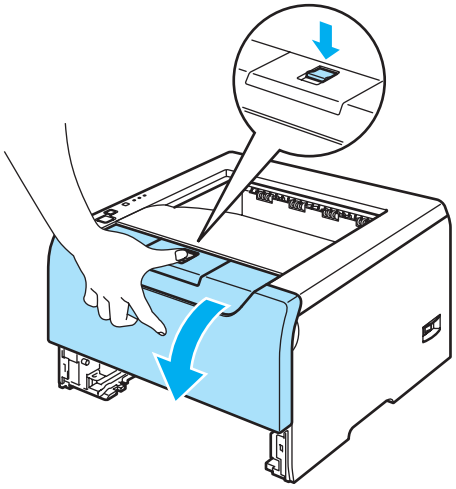


4 Close the front cover.

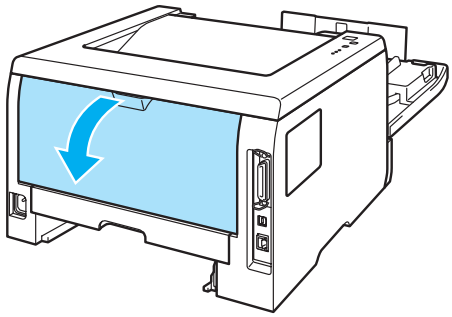
5 Pull the jammed paper up and out of the printer.



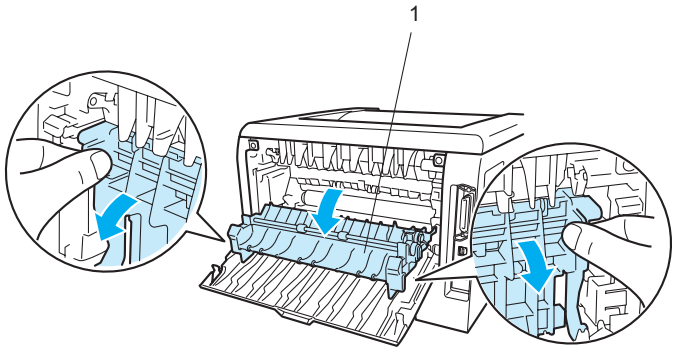
6 Open the front cover again.



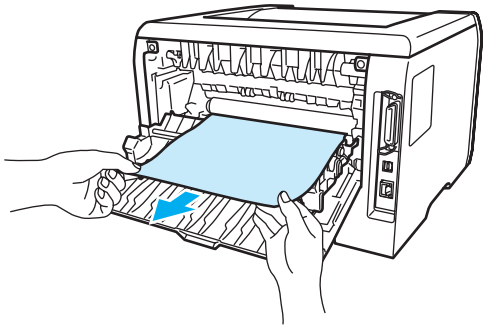
7 Open the back cover.



8 Pull the tabs at the left and right hand sides toward you to open the fuser cover (1).

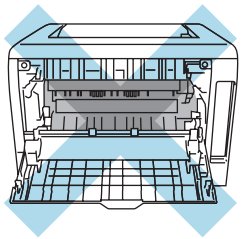


9 Using both hands, gently pull the jammed paper out of the fuser unit.



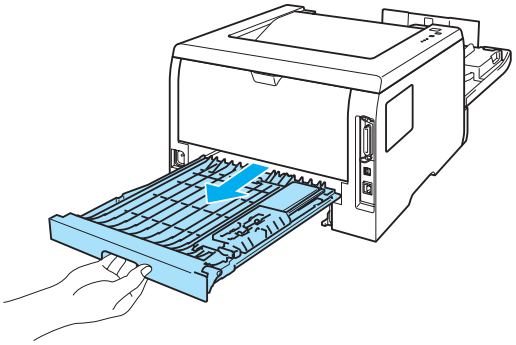
HOT SURFACE

After you have just used the printer, some internal parts of the printer will be extremely hot. Wait for the printer to cool down before you touch the internal parts of the printer.

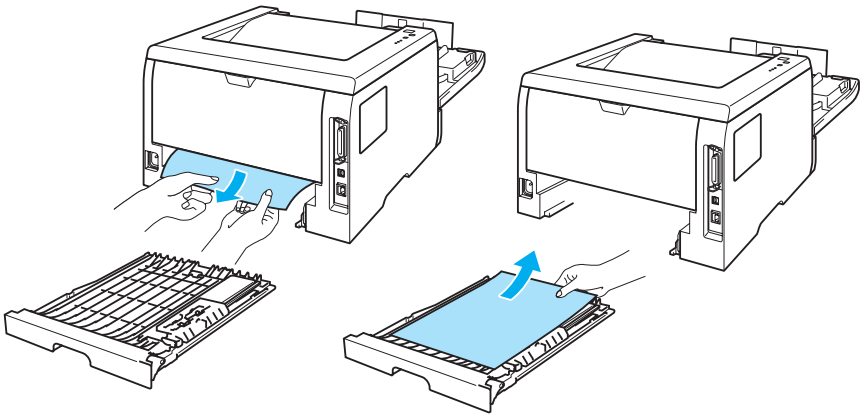


10 Close the back cover.

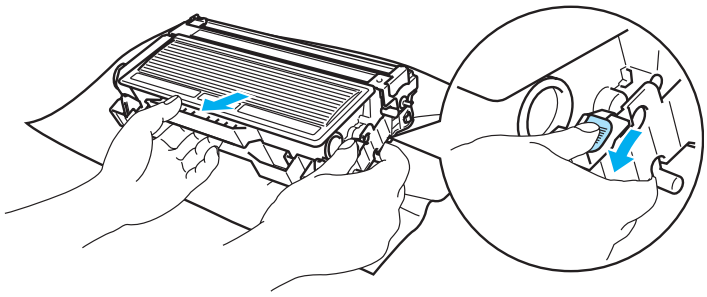
11 Pull the duplex tray completely out of the printer.



12 Pull the the jammed paper out of the printer or the duplex tray. Put the duplex tray back in the printer.



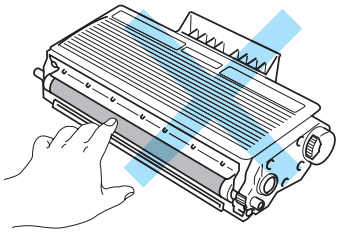
13 Push down the blue lock lever and take the toner cartridge out of the drum unit. Clear the jammed paper if there is any inside the drum unit.

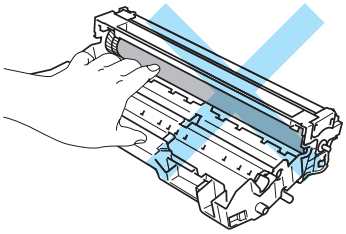


CAUTION

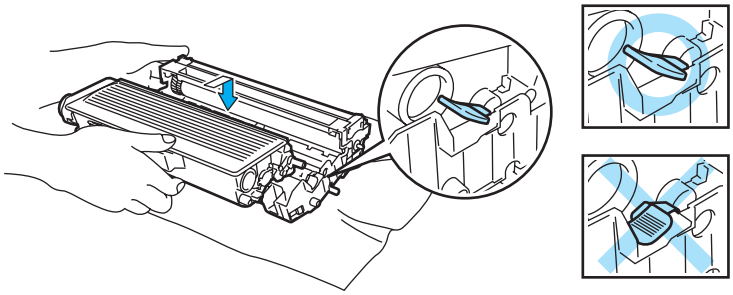
Handle the toner cartridge carefully. If toner scatters on your hands or clothes, wipe or wash it off with cold water at once.

To avoid print quality problems, DO NOT touch the shaded parts shown in the illustrations.

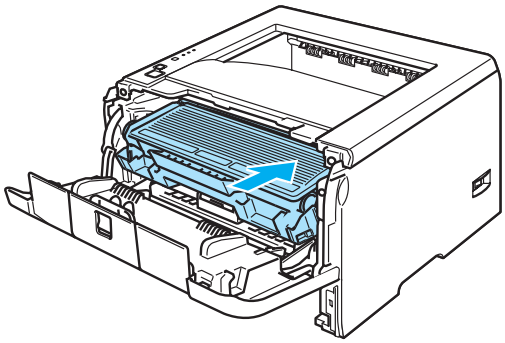




14 Put the toner cartridge back into the drum unit until you hear it lock into place. If you put the cartridge in properly, the blue lock lever will lift automatically.



15 Put the drum unit and toner cartridge assembly back in the printer.



16 Put the paper tray firmly back in the printer.

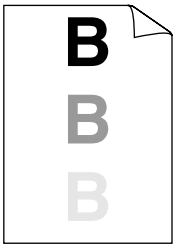
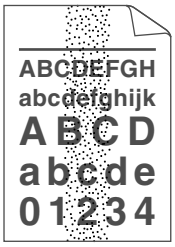
17 Close the front cover.

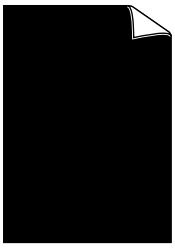
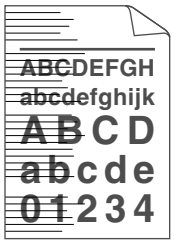
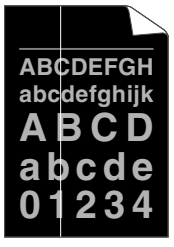
18 Make sure that the **Paper** LED is now off and the printer is ready.

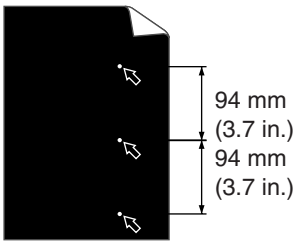
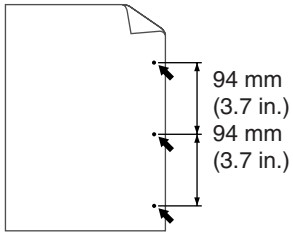
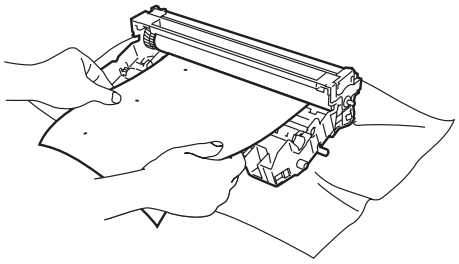
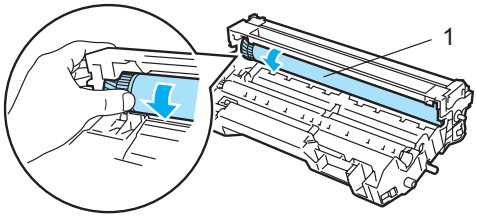
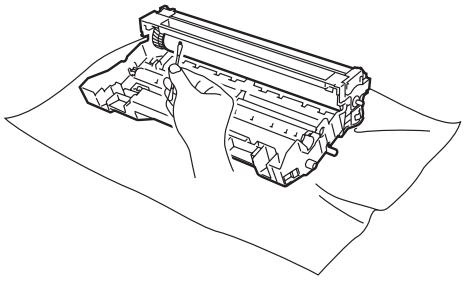
Improving the print quality

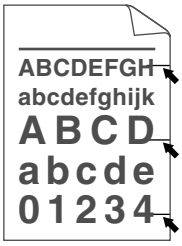
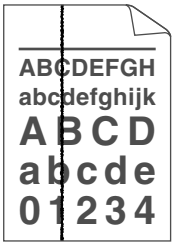
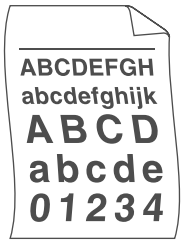
If you have a print quality problem, print a test page first (see *Print a test page* on page 4-8). If the printout looks good, the problem is probably not the printer. Check the interface cable or try the printer on another PC.

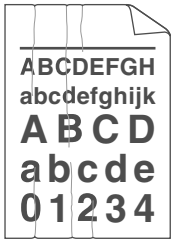
This section gives information on the following topics.

Examples of poor print quality	Recommendation
 Faint	■ Check the printer's environment. Conditions such as humidity, high temperatures, and so on, may cause this print fault. See *Positioning the printer* on page 1-4. ■ If the whole page is too light, **Toner Save Mode** may be on. Turn off **Toner Save Mode** in the printer **Properties** tab of the driver. ■ Put in a new toner cartridge. See *Replacing the toner cartridge* on page 6-3. ■ Put in a new drum unit. See *Replacing the drum unit* on page 6-8. ■ You may clear the problem by wiping the scanner window with a soft cloth. See *Cleaning the inside of the printer* on page 6-14.
 Gray background	■ Make sure that you use paper that meets our specifications. See *About paper* on page 2-1. ■ Check the printer's environment. Conditions such as high temperatures and high humidity can increase the amount of background shading. See *Positioning the printer* on page 1-4. ■ Put in a new toner cartridge. See *Replacing the toner cartridge* on page 6-3. ■ Put in a new drum unit. See *Replacing the drum unit* on page 6-8.
 **Ghost**	■ Make sure that you use paper that meets our specifications. Rough-surfaced paper or thick print media may cause this problem. See *About paper* on page 2-1. ■ Make sure that the media type setting in the driver matches the type of paper you are using. See *About paper* on page 2-1. ■ Put in a new drum unit. See *Replacing the drum unit* on page 6-8. ■ The fuser unit may be contaminated. Call Brother Customer Service.
 **Toner specks**	■ Make sure that you use paper that meets our specifications. Rough-surfaced paper may cause the problem. See *About paper* on page 2-1. ■ The drum unit may be damaged. Put in a new drum unit. See *Replacing the drum unit* on page 6-8. ■ The fuser unit may be contaminated. Call Brother Customer Service.

Examples of poor print quality	Recommendation
 Hollow print	■ Make sure that you use paper that meets our specifications. See *About paper* on page 2-1. ■ Choose **Thick paper** mode in the printer driver, or use thinner paper than what you are now using. ■ Check the printer's environment. Conditions such as high humidity can cause hollow print. See *Positioning the printer* on page 1-4.
 **All black**	■ Clean the primary corona wire inside the drum unit by sliding the blue tab. Be sure to return the blue tab to the home position (▲). See *Cleaning the corona wire* on page 6-17. ■ The drum unit may be damaged. Put in a new drum unit. See *Replacing the drum unit* on page 6-8. ■ The fuser unit may be contaminated. Call Brother Customer Service.
 White lines across the page	■ Make sure that you use paper that meets our specifications. A rough surfaced paper or thick print media can cause problems. ■ Make sure that you choose the proper media type in the printer driver. ■ The problem may disappear by itself. Print multiple pages to clear this problem, especially if the printer has not been used for a long time. ■ The drum unit may be damaged. Put in a new drum unit. See *Replacing the toner cartridge* on page 6-3.
 **Lines across the page**	■ Clean the inside of the printer and the primary corona wire in the drum unit. See *Cleaning* on page 6-13. ■ The drum unit may be damaged. Put in a new drum unit. See *Replacing the drum unit* on page 6-8.
 **White lines down the page**	■ Make sure that a torn piece of paper is not inside the printer covering the scanner window. ■ Wipe the scanner window with a soft cloth. See *Cleaning the inside of the printer* on page 6-14. ■ The toner cartridge may be damaged. Put in a new toner cartridge. See *Replacing the toner cartridge* on page 6-3. ■ The drum unit may be damaged. Put in a new drum unit. See *Replacing the drum unit* on page 6-8.

Examples of poor print quality	Recommendation
 **White Spots on black text and graphics at 94 mm (3.7 in.) intervals**  **Black Spots at 94 mm (3.7 in.) intervals**	■ If the problem is not solved after printing a few pages, the drum unit may have glue from the label stuck on the OPC drum surface. **Clean the drum unit as follows:** 1 Put the print sample in front of the drum unit, and find the exact position of the poor print.  2 Turn the drum unit gear by hand while looking at the surface of the OPC drum (1).  3 When you have found the mark on the drum that matches the print sample, wipe the surface of the OPC drum with a cotton swab until the dust or paper powder on the surface comes off.  **CAUTION** DO NOT clean the surface of the photosensitive drum with a sharp object. ■ The drum unit may be damaged. Put in a new drum unit. See *Replacing the drum unit* on page 6-8.

Examples of poor print quality	Recommendation
 **Black toner marks across the page**	■ The drum unit may be damaged. Put in a new drum unit. See *Replacing the drum unit* on page 6-8. ■ Make sure that you use paper that meets our specifications. See *About paper* on page 2-1. ■ If you use label sheets for laser printers, the glue from the sheets may sometimes stick to the OPC drum surface. Clean the drum unit. See on *Clean the drum unit as follows:* on page 7-15. ■ Do not use paper that has clips or staples because they will scratch the surface of the drum. ■ If the unpacked drum unit is in direct sunlight or room light, the unit may be damaged.
 **Black lines down the page** Printed pages have toner stains down the page.	■ Clean the primary corona wire inside the drum unit by sliding the blue tab. See *Cleaning the corona wire* on page 6-17. ■ Make sure the primary corona wire cleaner is at the home position (▲). ■ The drum unit may be damaged. Put in a new drum unit. See *Replacing the drum unit* on page 6-8. ■ The toner cartridge may be damaged. Put in a new toner cartridge. See *Replacing the toner cartridge* on page 6-3. ■ The fuser unit may be smudged. Call your dealer or Brother Customer Service.
 Page skewed	■ Make sure that the paper or other print media is loaded properly in the paper tray and that the guides are not too tight or too loose against the paper stack. ■ Set the paper guides correctly. See *Printing on plain paper, bond paper or transparencies from Tray 1, 2 or 3* on page 2-5. ■ If you are using the multi-puroise tray, see *Printing on plain paper, bond paper or transparencies from the MP tray* on page 2-8. ■ The paper tray may be too full. See *Printing on plain paper, bond paper or transparencies from Tray 1, 2 or 3* on page 2-5. ■ Check the paper type and quality. See *About paper* on page 2-1.
 **Curled or wavy**	■ Check the paper type and quality. High temperatures and high humidity will cause paper to curl. See *About paper* on page 2-1. ■ If you do not use the printer often, the paper may have been in the paper tray too long. Turn over the stack of paper in the paper tray. Also, fan the paper stack and then rotate the paper 180° in the paper tray.

Examples of poor print quality	Recommendation
 **Wrinkles or creases**	■ Make sure that the paper is loaded properly. See *Printing on plain paper, bond paper or transparencies from Tray 1, 2 or 3* on page 2-5. ■ Check the paper type and quality. See *About paper* on page 2-1. ■ Turn over the stack of paper in the tray or try rotating the paper 180° in the input tray.

Solving print problems

Problem	Recommendation
The printer prints unexpectedly or it prints garbage data.	■ Make sure that the printer cable is not too long. We recommend that you use a parallel or USB cable that is no longer than 2 meters (6.5 feet). ■ Make sure that the printer cable is not damaged or broken. ■ If you are using an interface-switching device, remove it. Connect your computer directly to your printer, and then try again. ■ Make sure that you have chosen the proper printer driver with 'Set as Default'. ■ Make sure that the printer is not connected to the same port that is also connected to a storage device or scanner. Take away all other devices and connect the port only to the printer. ■ Turn off the **Status Monitor** in the **Device Options** tab in the Windows® printer driver.
The printer cannot print full pages of a document. An error message **MEMORY FULL** is printed out.	■ Press **Go** to print the remaining data in the printer memory. Cancel the print job if you want to delete the remaining data in the printer memory. See *Control panel button* on page 4-7. ■ Reduce the complexity of your document or cut the print resolution. ■ Add more memory. See *Installing extra memory* on page 5-3.
The printer cannot print full pages of a document. An error message **PRINT OVERRUN** is printed out.	■ Press **Go** to print the remaining data in the printer memory. Cancel the print job if you want to delete the remaining data in the printer memory. See *Control panel button* on page 4-7. ■ Reduce the complexity of your document or cut the print resolution. ■ Add more memory. See *Installing extra memory* on page 5-3. ■ Set page protection to **AUTO** by using the supplied Windows® driver or Remote Printer Console program. ■ Change the following settings in the Windows® printer driver, and then try again. The best combination of the settings below will vary depending on your document: • Graphics mode • TrueType mode • Use printer TrueType® fonts
The headers or footers appear when the document displays on the screen but they do not show up when it is printed.	■ Adjust the top and bottom margins of your document.

Network problems

For problems concerning using your printer on a Network, see the Network User's Guide on the CD-ROM we have supplied.

Other problems

Problem	Recommendation
The printer cannot print. The '**There was an error writing to LPT1: (or BRUSB) for the printer'** error message occurs on your PC.	■ Make sure that the printer cable is not damaged or broken. ■ If you have an interface-switching device, make sure that you chose the correct printer.

For Macintosh® with USB

Problem	Recommendation
The printer does not appear in **Chooser** (Mac OS® 9.1 to 9.2), **Print Center** (Mac OS® X 10.2) or **Print Setup Utility** (Mac OS® X 10.3 or greater).	■ Make sure that the printer is turned on. ■ Make sure that the USB interface cable is connected correctly. ■ Make sure the printer driver is installed correctly.
Unable to print from the application.	■ Make sure that the supplied Macintosh® printer driver is installed in the **Hard Disk** and that it is chosen with **Chooser** (Mac OS® 9.1 to 9.2), **Print Center** (Mac OS® X 10.2) or **Print Setup Utility** (Mac OS® X 10.3 or greater).

Printing from DOS

Problem	Recommendation
Cannot print from the application.	■ Make sure that the DOS application interface settings match those of your printer. For example, if you are using a parallel printer cable, you would set your DOS application printer port to LPT1. ■ Check if the printer has any printer alarms. ■ Make sure that you have chosen a printer driver in your application that is supported by your Brother printer. For information about the printers your machine can emulate, see *About emulation modes* on page 3-21.

BR-Script 3

Problem	Recommendation
The print speed slows down.	Add optional memory. See *Installing extra memory* on page 5-3.
The printer cannot print EPS data.	You need the following settings to print EPS data: 1 In the Printer folder, choose the printer you use. 2 Press the **Advanced** button on the PostScript® tab. 3 Choose **Tagged binary communication protocol** in data format.

CAUTION

Not following the instructions for using the printer may cause you to be responsible for all repairs.

A Appendix

Printer specifications

Engine

Model		HL-5240	HL-5250DN
Technology		Electrophotographic	
Print speed		Up to 30 ppm (Letter size) [1], Up to 28 ppm (A4 size) [1]	
First print time		Less than 8.5 sec	
Resolution	Windows® 95/98/Me, Windows NT® 4.0 and Windows® 2000/XP	1200 dpi [2] HQ1200 600 dpi 300 dpi	
	DOS	600 dpi	
	Mac OS®	1200 dpi [2] HQ1200 600 dpi 300 dpi	
	Linux	600 dpi 300 dpi	

[1] From standard paper tray and optional paper tray 2

[2] If you use the high quality 1200 dpi setting (1200 × 1200 dpi) the print speed will be slower.

Controller

Model		HL-5240	HL-5250DN
Processor		266MHz	
Memory	Standard	16 MB	32 MB
	Option	1 DIMM slot; expandable up to 528 MB	1 DIMM slot; expandable up to 544 MB
Interface	Standard	Hi-Speed USB 2.0 [1], IEEE 1284 Parallel	Hi-Speed USB 2.0 [1], IEEE 1284 Parallel, 10/100BASE-TX Ethernet
	Option	10/100BASE-TX Ethernet (NC-2100p)	N/A
Network Connectivity	Protocols	TCP/IP, NetBEUI (Optional NC-2100p)	TCP/IP (Standard 10/100BASE-TX Ethernet)
	Management tool	N/A	BRAdmin Professional [2] BRAdmin Light [3] Web BRAdmin [4] Web Based Management [5]
Emulation		PCL6, BR-Script 3 (PostScript® 3™), Epson FX-850, IBM ProPrinter XL	
Resident fonts	PCL	66 scalable fonts, 12 bitmap fonts, 11 bar codes [6]	
	PostScript® 3™	66 fonts	

1 USB is not supported under Windows® 95 or Windows NT®4.0.

2 Brother original Windows® utility for printer and print server management.

3 Brother original Macintosh® utility for printer and print server management.

4 Server based management utility. Download from http://solutions.brother.com.

5 Printer and print server management through Web browser.

6 Code39, Interleaved 2 of 5, EAN-8, EAN-13, UPC-A, UPC-E, EAN-128, Codabar, FIM (US-PostNet), ISBN, Code128

Software

Model		HL-5240	HL-5250DN
Printer driver	Windows®	PCL Driver for Windows® 95/98/Me/2000/XP [1], Windows NT® 4.0	
		Generic PCL Driver for Windows NT® 4.0, Windows® 2000/XP	
		BR-Script 3 (PPD file) for Windows® 95/98/Me/2000/XP [1], Windows NT® 4.0.	
	Macintosh®	Brother Laser Driver for Mac OS® 9.1 to 9.2 and Mac OS® × 10.2.4 or greater	
		BR-Script 3 (PPD file) for Mac OS® 9.1 to 9.2 and Mac OS® × 10.2.4 or greater	
	Linux	LPR driver for Linux [2]	
		CUPS driver for Linux [2]	
Utilities		Interactive Help [3]	Interactive Help [3] Driver Deployment Wizard [4]

1 Download the printer driver for Windows® XP Professional x64 Edition from http://solutions.brother.com.

2 Download the printer driver for Linux from http://solutions.brother.com.

3 Instructional animations for problem solving

4 The Driver Deployment Wizard automates the installation of printers in a peer-to-peer network.

Control panel

Model	HL-5240	HL-5250DN
LED	4 LEDs	
Button	2 buttons	

Paper handling

Model		HL-5240	HL-5250DN
Paper Input [1]	Multi-purpose tray	50 sheets	
	Paper tray (Standard)	250 sheets	
	Lower tray (Option)	250 sheets	
Paper Output [1]	Face-down	150 sheets	
Duplex	Manual Duplex	Yes	
	Automatic Duplex	N/A	Yes

1 Calculated with 80 g/m2 (21 lb) paper

Media specifications

Model		HL-5240	HL-5250DN
Media types	Multi-purpose tray	Plain paper, Bond paper, Recycled paper, Envelopes, Labels, Transparencies [1], Thin paper, Thick paper, Thicker paper	
	Paper tray	Plain paper, Bond paper, Recycled paper, Transparencies [1], Thin paper	
	Lower tray unit (Option) (LT-5300)	Plain paper, Bond paper, Recycled paper, Thin paper	
	Automatic duplex printing	Plain paper, Recycled paper	
Media weights	Multi-purpose tray	60 to 161 g/m^2 (16 to 43 lb)	
	Paper tray	60 to 105 g/m^2 (16 to 28 lb)	
	Lower tray unit (Option) (LT-5300)	60 to 105 g/m^2 (16 to 28 lb)	
	Automatic duplex printing	60 to 105 g/m^2 (16 to 28 lb)	
Media sizes	Multi-purpose tray	Width: 69.9 to 215.9 mm (2.75 to 8.5 in.) Length: 116 to 406.4 mm (4.57 to 16 in.)	
	Paper tray (Standard)	A4, Letter, Legal [2], B5 (ISO), Executive, A5, A6, B6 (ISO)	
	Lower tray unit (Option) (LT-5300)	A4, Letter, Legal [2], B5 (ISO), Executive, A5, B6 (ISO)	
	Automatic duplex printing	A4, Letter, Legal [2]	

[1] Up to 10 sheets

[2] Legal size paper is not available in some regions outside the USA and Canada.

Supplies

Model		HL-5240	HL-5250DN
Toner	Standard cartridge	Approx. 3,500 pages A4/Letter pages @ 5% coverage	
	High yield cartridge	Approx. 7,000 pages A4/Letter pages @ 5% coverage	
Drum		Approx. 25,000 A4/Letter pages (1 page / job)	

Dimensions / Weights

Model	HL-5240	HL-5250DN
Dimensions (W × D × H)	371 × 384 × 246 mm (14.6 × 15.1 × 9.7 in.)	
Weights	Approx. 9.5 kg (20.9 lb), not including the drum unit and toner cartridge Approx. 10.7 kg (23.6 lb), including the drum unit and toner cartridge	Approx. 9.8 kg (21.6 lb), not including the drum unit and toner cartridge Approx. 11.0 kg (24.3 lb), including the drum unit and toner cartridge

Other

Model			HL-5240	HL-5250DN
Power consumption		Printing	Average 610 W at 25 °C (77 °F)	Average 610 W at 25 °C (77 °F)
		Standby	Average 80 W at 25 °C (77 °F)	Average 80 W at 25 °C (77 °F)
		Sleep	Average 8 W	Average 9 W
Noise level	Sound power	Printing	LWA = 6.4 Bell (A)	
		Standby	4.0 Bell (A)	
Ecology	Power save		Yes	
	Toner save [1]		Yes	

1 We do not recommend Toner Save for printing Photo or Gray Scale images.

System Requirements

Computer Platform & Operating System Version		Processor Speed	Minimum RAM	Recommended RAM	Available Hard Disk Space
Windows®	95 [1], 98, 98SE	486/66 MHz	8 MB	16 MB	40 MB
	NT® Workstation 4.0 [1]	Intel® Pentium® 75 MHz	16 MB	32 MB	50 MB
	2000 Professional	Intel® Pentium® 133 MHz	64 MB	128 MB	50 MB
	Me	Intel® Pentium® 150 MHz	32 MB	64 MB	50 MB
	XP Home Edition	Intel® Pentium® 300 MHz	128 MB	128 MB	50 MB
	XP Professional				
	XP Professional x64 Edition [2]	AMD Opteron™ AMD Athlon™ 64 Intel® Xeon™ with Intel® EM64T Intel® Pentium® 4 with Intel® EM64T	256 MB	256 MB	50 MB
Apple® Macintosh® [3]	OS® 9.1 - 9.2	All base models meet minimum requirements	32 MB	64 MB	50 MB
	OS® X 10.2.4 or greater		128 MB	160 MB	

1 USB is not supported under Windows® 95 or Windows NT®4.0.

2 Download the printer driver for Windows® XP Professional x64 Edition from http://solutions.brother.com.

3 Power Macintosh with an Apple original pre-installed USB port.

Important information for choosing your paper

This section gives information to help you choose paper to use with this printer.

Note

If you use paper that is not recommended, a paper jam or misfeed may occur in the printer. See *Recommended paper* on page 2-2.

Before you buy a large quantity of paper

Make sure that the paper is suitable for the printer.

Paper for plain paper copies

Paper is divided by usage, such as paper for printing and paper for copying. The usage is usually written on the paper's package. Check the package to see whether it is suitable for laser printers. Use paper that is suitable for laser printers.

Basis weight

The basis weight of the paper in general use varies in different countries. We recommend that you use paper that weighs 75 to 90 g/m^2 (20 to 24 lb), although this printer is able to cope with thinner or thicker paper than these weights.

Unit	Europe	USA
g/m^2	80 to 90	75 to 90
lb		20 to 24

Long grain and short grain

The pulp fiber of the paper is aligned during paper manufacturing. And paper can be classified into two types, long grain and short grain.

Long grain paper's fiber direction is parallel to the carriage direction of the paper in the printer. Short grain paper's fiber direction is vertical to the carriage direction of the paper in the printer. Though most plain paper for copying is long grain, some is short grain. We recommend that you use long grain paper for this printer. Short grain paper is too weak for the paper carriage of the printer.

Acid paper and neutralized paper

Paper can be classified as either acid paper or neutralized paper.

Though modern paper manufacture methods started with acid paper, neutralized paper is recentry taking the place of acid paper because of environmental issues.

However, many forms of acid paper can be found in recycled paper. We recommend that you use neutralized paper for this printer.

You can use an acid paper check pen to distinguish acid paper from neutral paper.

Print surface

The characteristics of the face side and reverse side of a sheet of paper may vary a little.

Usually, the opening side of the ream of the paper package is the print side. Follow the indications on the paper package. Typically, the print side is indicated by an arrow.

Moisture content

Moisture content is the amount of water left in the paper after manufacture. It is one of the important characteristics of the paper. This can change greatly depending on the storage environment, although usually paper contains about 5% water by weight. Because paper often absorbs water, the amount of water can sometimes be about 10% in a high humidity environment. When the amount of water increases, the characteristics of the paper changes greatly. The fixing of the toner may become worse. For storage of the paper and during use, we recommend that the humidity of the surrounding environment be between 50% and 60%.

Rough estimate of basis weight

g/m^2	lb	
	Bond	Index
60	16	
64	17	
75	20	
90	24	
105	28	
120	32	
135	36	
161	43	90
200	53	110

Paper size

Paper size	mm	in.
Letter		8.5 × 11 in.
Legal		8.5 × 14 in.
Executive		7.25 × 10.5 in.
A4	210 × 297 mm	
A5	148 × 210 mm	
A6	105 × 148 mm	
Envelope Monarch		3.875 × 7.5 in.
Envelope #9		3.875 × 8.9 in.
Envelope #10		4.12 × 9.5 in.
Envelope #11		4.5 × 10.375 in.
Envelope DL	110 × 220 mm	
Envelope C5	162 × 229 mm	
Envelope C6	114 × 162 mm	
B5 (JIS)	182 × 257 mm	
B5 (ISO)	176 × 250 mm	
B6	125 × 176 mm	
Folio		8.5 × 13 in.

Symbol and character sets

For the HP LaserJet, IBM Proprinter XL, and EPSON FX-850 emulation modes, you can choose the symbol and character sets using a web browser or the Remote Printer Console software.

How to use the web browser

To use the web browser, follow the steps below.

1. Enter [http://printer's IP address/] into your browser.
   For example: [http://192.168.1.2/] (if the printer's IP address is 192.168.1.2)
2. Click **Printer Settings**.
3. Enter a user name and a password. The default User Name is [admin] and the default Password is [access].
4. Click **OK**.
5. Choose the **HP LaserJet**, **IBM Proprinter XL** or **EPSON FX-850** tab and click **Font Setup**. Choose a symbol set you want to use from the **Symbol Set** list box.

How to use the Remote Printer Console

To use the Remote Printer Console software, follow the steps below.

For Windows®

1. Put the CD-ROM into your CD-ROM drive and close the opening screen when it appears.
2. Open Windows® Explore and choose the CD-ROM drive.
3. Double-click the **RPC** folder.
4. See the **RPC**_User's_Guide.pdf for how to install and use the Remote Printer Console.

For Macintosh®

1. Put the CD-ROM into your CD-ROM drive. Double-click the **HL5200** icon on the desktop.
2. Double-click the **RPC** folder.
3. See the **RPC_User's_Guide.pdf** for how to install and use the Remote Printer Console.

Symbol and character sets list

OCR symbol sets

When you choose the OCR-A or OCR-B font, the matching symbol set is always used.

OCR A (0O)

OCR B (1O)

HP LaserJet mode

ABICOMP Brazil / Portugal (13P)
ABICOMP International (14P)
Desktop (7J)
Greek8 (8G)
HP German (0G)
HP Spanish (1S)
ISO Latin1 (0N)
ISO Latin2 (2N)
ISO Latin5 (5N)
ISO Latin6 (6N)
ISO2 IRV (2U)
ISO4 UK (1E)
ISO5 ASCII (0U)
ISO10 Swedish (3S)
ISO11 Swedish (0S)
ISO14 JIS ASCII (0K)
ISO15 Italian (0I)
ISO16 Portuguese (4S)
ISO17 Spanish (2S)
ISO21 German (1G)
ISO25 French (0F)
ISO57 Chinese (2K)
ISO60 Norwegian1 (0D)
ISO61 Norwegian2 (1D)
ISO69 French (1F)
ISO84 Portuguese (5S)
ISO85 Spanish (6S)
ISO8859 / 7 Latin / Greek (12N)
ISO8859 / 15 Latin (9N)
ISO8859 / 15 Latin / Cyrillic (10N)
Legal (1U)
Math-8 (8M)
MC Text (12J)
MS Publishing (6J)
PC8 (10U)
PC8 Bulgarian (13R)
PC8 D/N (11U)
PC8 Greek Alternate (437G) (14G)
PC8 Latin / Greek (12G)
PC8 PC Nova (27Q)
PC8 Turkish (9T)
PC775 (26U)
PC850 Multilingual (12U)
PC851 Greece (10G)
PC852 East Europe (17U)
PC853 Latin3 (Turkish) (18U)
PC855 Cyrillic (10R)
PC857 Latin5 (Turkish) (16U)
PC858 Multilingual Euro (13U)
PC860 Portugal (20U)
PC861 Iceland (21U)
PC863 Canadian French (23U)
PC865 Nordic (25U)
PC866 Cyrillic (3R)
PC869 Greece (11G)
PC1004 (9J)
Pi Font (15U)
PS Math (5M)
PS Text (10J)
Roman8 (8U)

HP LaserJet mode (Continued)

Roman9 (4U)
Roman Extension (0E)
Russian-GOST (12R)
Symbol (19M)
Turkish8 (8T)
Ukrainian (14R)
Ventura Math (6M)
Ventura Intl (13J)
Ventura US (14J)
Windows 3.0 (9U)
Windows Baltic (19L)
Windows Cyrillic (9R)
Windows Greek (9G)
Windows Latin1 (19U)
Windows Latin2 (9E)
Windows Latin5 (5T)
Wingdings (579L)

IBM mode

PC8
PC8 D/N
PC8 Turkish
PC850 Multilingual
PC852 East Europe
PC860 Portugal
PC863 Canadian French
PC865 Nordic

Epson mode

Danish I
Danish II
Dutch
French I
French II
German
Italian
Norwegian
Japanese
PC8
PC8 D/N
PC8 Turkish
PC850 Multilingual
PC852 East Europe
PC860 Portugal
PC863 Canadian French
PC865 Nordic
South African
Spanish
Swedish
UK ASCII I
UK ASCII II
US ASCII

Quick reference for bar code control commands

The printer can print bar codes in the HP LaserJet, EPSON FX-850, and IBM Proprinter XL emulation modes.

Print bar codes or expanded characters

Code	ESC i
Dec	27 105
Hex	1B 69

Format: ESC i n ... n \

Creates bar codes or expanded characters according to the segment of parameters ‘n ... n’. For more information about parameters, see the following Definition of Parameters. This command must end with the ‘ \ ’ code (5CH).

Definition of Parameters

This bar code command can have the following parameters in the parameter segment (n ... n). As parameters are effective within the single command syntax ESC i n ... n \, they do not apply in the bar code commands. If certain parameters are not given, they take the preset settings. The last parameter must be the bar code data start (‘b’ or ‘B’) or the expanded character data start (‘l’ or ‘L’). Other parameters can be given in any sequence. Each parameter can start with a lower-case or upper-case character, for example, ‘t0’ or ‘T0’, ‘s3’ or ‘S3’ and so one.

Bar code mode

n = ‘t0’ or ‘T0’	CODE 39 (default)
n = ‘t1’ or ‘T1’	Interleaved 2 of 5
n = ‘t3’ or ‘T3’	FIM (US-Post Net)
n = ‘t4’ or ‘T4’	Post Net (US-Post Net)
n = ‘t5’ or ‘T5’	EAN 8, EAN 13, or UPC A
n = ‘t6’ or ‘T6’	UPC E
n = ‘t9’ or ‘T9’	Codabar
n = ‘t12’ or ‘T12’	Code 128 set A
n = ‘t13’ or ‘T13’	Code 128 set B
n = ‘t14’ or ‘T14’	Code 128 set C
n = ‘t130’ or ‘T130’	ISBN (EAN)
n = ‘t131’ or ‘T131’	ISBN (UPC-E)
n = ‘t132’ or ‘T132’	EAN 128 set A
n = ‘t133’ or ‘T133’	EAN 128 set B
n = ‘t134’ or ‘T134’	EAN 128 set C

This parameter selects the bar code mode as shown above. When n is ‘t5’ or ‘T5’ the bar code mode (EAN 8, EAN 13, or UPC A) varies according to the number of characters in the data.

Bar Code, expanded character, line block drawing and box drawing

n = ‘s0’ or ‘S0’	3: 1 (default)
n = ‘s1’ or ‘S1’	2: 1
n = ‘s3’ or ‘S3’	2.5: 1

This parameter chooses the bar code style as above. When the EAN 8, EAN 13, UPC-A, Code 128 or EAN 128 bar code mode is chosen, this bar code style parameter is ignored.

Expanded Character

‘S’

0 = White

1 = Black

2 = Vertical stripes

3 = Horizontal stripes

4 = Cross hatch

For example ‘S’ n1 n2

n1 = Background fill pattern

n2 = Foreground fill pattern

If ‘S’ is followed by only one parameter, the parameter is a foreground fill pattern.

Line block drawing & box drawing

‘S’

1 = Black

2 = Vertical stripes

3 = Horizontal stripes

4 = Cross hatch

Bar Code

n = ‘mnnn’ or ‘Mnnn’ (nnn = 0 ~ 32767)

This parameter shows the bar code width. The unit of ‘nnn’ is a percentage.

Bar code human readable line ON or OFF

n = ‘r0’ or ‘R0	Human readable line OFF
n = ‘r1’ or ‘R1	Human readable line ON

Preset:	Human readable line ON
	(1) ‘T5’ or ‘t5’
	(2) ‘T6’ or ‘t6’
	(3) ‘T130’ or ‘t130’
	(4) ‘T131’ or ‘t131’
Preset:	Human readable line OFF
	All others

This parameter shows whether the printer prints the human readable line below the bar code. Human readable characters are always printed with OCR-B font of 10 pitch and all the current character style enhancements are masked. The default setting is determined by the bar code mode selected by ‘t’ or ‘T’.

Quiet zone

n = ‘onnn’ or ‘Onnn’ (nnn = 0 ~ 32767)

Quiet zone is the space on both sides of the bar codes. Its width can be shown using the units that are set by the ‘u’ of ‘U’ parameter. (For the description of ‘u' or ‘U' parameter, see the next section.) The default setting of the quiet-zone width is 1 inch.

Bar code, expanded character unit, line block drawing and box drawing

n = ‘u0’ or ‘U0’	mm (preset)
n = ‘u1’ or ‘U1’	1/10
n = ‘u2’ or ‘U2’	1/100
n = ‘u3’ or ‘U3’	1/12
n = ‘u4’ or ‘U4’	1/120
n = ‘u5’ or ‘U5’	1/10 mm
n = ‘u6’ or ‘U6’	1/300
n = ‘u7’ or ‘U7’	1/720

This parameter shows the measurement units of X-axis offset, Y-axis offset, and bar code height.

Bar code, expanded character, line block drawing and box drawing offset in X-axis

n = ‘xnnn’ or ‘Xnnn’

This parameter shows the offset from the left margin in the ‘u’- or ‘U’-specified unit.

Bar code & expanded character offset in Y-axis

n = ‘ynnn’ or ‘Ynnn’

This parameter shows the downward offset from the current print position in the ‘u’- or ‘U’-specified unit.

Bar code, expanded character, line block drawing and box drawing height

n = ‘hnnn’, ‘Hnnn’, ‘dnnn’, or ‘Dnnn’

1 EAN13, EAN8, UPC-A, ISBN (EAN13, EAN8, UPC-A), ISBN (UPC-E): 22 mm

2 UPC-E: 18 mm

3 Others: 12 mm

Expanded characters ⟶ 2.2 mm (preset)

Line block drawing and box drawing ⟶ 1 dot

This parameter shows the height of bar codes or expanded characters as shown above. It can start with ‘h’, ‘H’, ‘d’, or ‘D’. The height of bar codes is shown in the ‘u’- or ‘U’-specified unit. The default setting of the bar code height (12 mm, 18 mm or 22 mm) is determined by the bar code mode selected by ‘t’ or ‘T’.

Expanded character width, line block drawing and box drawing

n = ‘wnnn’ or ‘Wnnn’

Expanded character ⟶ 1.2 mm

Line block drawing and box drawing ⟶ 1 dot

This parameter shows the width of expanded characters as shown above.

Expanded character rotation

n = ‘a0’ or ‘A0’	‘Upright (preset)
n = ‘a1’ or ‘A1’	‘Rotated 90 degrees
n = ‘a2’ or ‘A2’	‘Upside down, rotated 180 degrees
n = ‘a3’ or ‘A3’	‘Rotated 270 degrees

Bar code data start

n = ‘b’ or ‘B’

Data that follows ‘b’ or ‘B’ is read in as bar code data. Bar code data must end with the ‘ \ ’ code (5CH), which also ends this command. The acceptable bar code data is determined by the bar code mode selected by ‘t’ or ‘T’.

- When CODE 39 is chosen with the parameter ‘t0’ or ‘T0’

  Forty three characters ‘0’ to ‘9’, ‘A’ to ‘Z’, ‘-’, ‘ . ’, ‘ (space)’, ‘$’, ‘ / ’, ‘+’, and ‘%’ can be accepted as bar code data. Other characters will cause a data error. The number of characters for bar codes is not limited. The bar code data automatically starts and ends with an asterisk ‘ * ’ (start character and stop character). If the received data has an asterisk ‘ * ’ at the beginning or end, the asterisk is regarded as a start character or stop character.

- When Interleaved 2 of 5 is selected with the parameter ‘t1’ or ‘T1’:

  Ten numerical characters ‘0’ to ‘9’ can be accepted as bar code data. Other characters cause a data error. The number of characters for bar codes is not limited. This mode of bar codes needs even characters. If the bar code data has odd characters, ‘0’ is automatically added to the end of the bar code data.

- When FIM (US-Post Net) is selected with the parameter ‘t3’ or ‘T3’

  Characters ‘A’ to ‘D’ are valid and one digit of data can be printed. Upper-case and lower-case alphabet characters can be accepted.

- When Post Net (US-Post Net) is selected with the parameter ‘t4’ or ‘T4’

  Numbers ‘0’ to ‘9' can be data and it must end with a check digit. ‘?’ can be used instead of the check digit.

- When EAN 8, EAN 13, or UPC A is selected with the parameter ‘t5’ or ‘T5’

  Ten numbers ‘0’ to ‘9’ can be accepted as bar code data. The number of characters for bar codes is limited as follows:

  EAN 8: Total 8 digits (7 digits + 1 check digit)

  EAN 13: Total 13 digits (12 digits + 1 check digit)

  UPC A: Total 12 digits (11 digits + 1 check digit)

  A number of characters other than those stated above will cause a data error that results in the bar code data being printed as normal print data. If the check digit is not correct, the printer decides the correct check digit automatically so that the correct bar code data will be printed. When EAN13 is selected, adding ‘+’ and a two-digit or five-digit number after the data can create an add-on code.

- When UPC-E is selected with the parameter ‘t6’ or ‘T6’:

  The numbers ‘0’ to ‘9’ can be accepted as bar code data.

Eight digits [1] [2]	(standard format) The first character must be ‘0’ and the data must end with a check digit. Total eight digits = ‘0’ plus 6 digits plus 1 check digit.
Six digits [2]	The first character and the last check digit are removed from the eight digit data.

[1] ‘?’ can be used instead of a check digit.

[2] Adding ‘+’ and two-digit or five-digit number after the data creates an add-on code.

- When Codebar is chosen with the parameter ‘t9’ or ‘T9’

  Characters ‘0’ to ‘9’, ‘-’, ‘ . ’, ‘$’, ‘/’, ‘+’, ‘ : ’ can be printed. Characters ‘A’ to ‘D’ can be printed as a start-stop code, which can be upper case or lower case. If there is no start-stop code, errors will happen. A check digit cannot be added and using ‘?’ causes errors.

- When Code 128 Set A, Set B, or Set C is selected with the parameter ‘t12’ or ‘T12’, ‘t13’ or ‘T13’, or ‘t14’ or ‘T14’

  Code 128 sets A, B and C can be individually selected. Set A shows characters Hex 00 to 5F. Set B includes characters Hex 20 to 7F. Set C includes the pairs 00 to 99. Switching is allowed between the code sets by sending %A, %B, or %C. FNC 1, 2, 3, and 4 are produced with %1, %2, %3, and %4. The SHIFT code, %S, allows temporary switching (for one character only) from set A to set B and vice versa. The ‘%’ character can be encoded by sending it twice.

- When ISBN (EAN) is selected with the parameter ‘t130’ or ‘T130’

  The same rules apply as for ‘t5’ or ‘T5’.

- When ISBN (UPC-E) is selected with the parameter ‘t131’ or ‘T131’:

  The same rules apply as for ‘t6’ or ‘T6’.

- When EAN 128 set A, set B or set C is selected with the parameter ‘t132’ or ‘T132’, ‘t133’ or ‘T133’ or ‘t134’ or ‘T134’

  The same rules apply as for ‘t12’ or ‘T12’, ‘t13’ or ‘T13’, or ‘t14’ or ‘T14’.

Box drawing

ESC i ... E (or e)

‘E’ or ‘e’ is a terminator.

Line block drawing

ESC i ... V (or v)

‘V’ or ‘v’ is a terminator.

Expanded character data start

n = ‘l’ or ‘L’

Data that follows ‘l’ or ‘L’ is read as expanded character data (or labeling data). Expanded character data must end with the ‘ \ ’ code (5CH), which also ends this command.

Example Program Listings

```
WIDTH "LPT1:",255
'CODE 39
LPRINT CHR$(27);"it0r1s0o0x00y00bCODE39?\";
'Interleaved 2 of 5
LPRINT CHR$(27);"it1r1s0o0x00y20b123456?\";
'FIM
LPRINT CHR$(27);"it3r1o0x00y40bA\";
'Post Net
LPRINT CHR$(27);"it4r1o0x00y60b1234567890?\";
'EAN-8
LPRINT CHR$(27);"it5r1o0x00y70b1234567?\";
'UPC-A
LPRINT CHR$(27);"it5r1o0x50y70b12345678901?\";
'EAN-13
LPRINT CHR$(27);"it5r1o0x100y70b123456789012?\";
'UPC-E
LPRINT CHR$(27);"it6r1o0x150y70b0123456?\";
'Codabar
LPRINT CHR$(27);"it9r1s0o0x00y100bA123456A\";
'Code 128 set A
LPRINT CHR$(27);"it12r1o0x00y120bCODE128A12345?\";
```

```
'Code 128 set B
LPRINT CHR$(27);"it13r1o0x00y140bCODE128B12345?\";
'Code 128 set C
LPRINT CHR$(27);"it14r1o0x00y160b";CHR$(1);CHR$(2);"?\";
'ISBN(EAN)
LPRINTCHR$(27);"it130r1o0x00y180b123456789012?+12345\";
'EAN 128 set A
LPRINT CHR$(27);"it132r1o0x00y210b1234567890?\";
LPRINT CHR$(12)
END
```

B Appendix (For Europe and Other Countries)

Brother Numbers

IMPORTANT

For technical and operational help, you must call the country where you bought the printer. Calls must be made ***from within*** that country.

Register your product

By registering your Brother product, you will be recorded as the original owner of the product.

Your registration with Brother:

- may serve as a confirmation of the purchase date of your product should you lose your receipt;
- may support an insurance claim by you in the event of product loss covered by insurance; and,
- will help us to notify you of enhancements to your product and special offers.

Please complete the Brother Warranty Registration or, for your convenience and most efficient way to register your new product, register on-line at

http://www.brother.com/registration/

Frequently asked questions (FAQs)

The Brother Solutions Center is our one-stop resource for all your printer needs. You can download the latest drivers, software and utilities, read FAQs and troubleshooting tips to learn how to get the most from your Brother product.

http://solutions.brother.com

You can check here for Brother driver updates.

Customer Service

Visit http://www.brother.com for contact information on your local Brother office.

Service center locations

For service centres in Europe, contact your local Brother Office. Address and telephone contact information for European offices can be found at http://www.brother.com by selecting your country.

Internet Addresses

Brother Global Web Site: http://www.brother.com

For Frequently Asked Questions (FAQs), Product Support and Technical Questions, and Driver Updates and Utilities: http://solutions.brother.com

Important information: Regulations

Radio interference (220 to 240 volt model only)

This printer follows EN55022 (CISPR Publication 22)/Class B.

Before you use this product, make sure that you use one of the following interface cables.

1 A shielded parallel interface cable with twisted-pair conductors and that it is marked IEEE 1284 compliant.

2 A USB cable.

The cable must not be more than 2 meters long.

International ENERGY STAR® Compliance Statement

The purpose of the International ENERGY STAR® Program is to promote the development and popularization of energy-efficient office equipment.

As an ENERGY STAR® Partner, Brother Industries, Ltd. has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

IEC 60825-1 specification (220 to 240 volt model only)

This printer is a Class 1 laser product as defined in IEC 60825-1 specifications. The label shown below is attached in countries where it is needed.

This printer has a Class 3B laser diode which produces invisible laser radiation in the laser unit. You should not open the laser unit under any circumstances.

Caution

Use of controls or adjustments or performance of procedures other than those specified in this User's Guide may result in hazardous radiation exposure.

For Finland and Sweden

LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

Varoitus!

Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

Varning

Om apparaten används på annat sätt än i denna Bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

Internal laser radiation

Maximum radiation power:	5 mW
Wave length:	770 - 810 nm
Laser class:	Class 3B

IMPORTANT - For Your Safety

To ensure safe operation, the supplied three-pin plug must be inserted only into a standard three-pin power outlet that is properly grounded through the standard electrical wiring.

Extension cords used with this printer must be three-pin plug type and correctly wired to provide proper grounding. Incorrectly wired extension cords may cause personal injury and equipment damage.

The fact that the equipment operates satisfactorily does not imply that the power is grounded and that the installation is completely safe. For your safety, if in any doubt about the effective grounding of the power, call a qualified electrician.

This product should be connected to an AC power source within the range indicated on the rating label. DO NOT connect it to a DC power source. If you are not sure, contact a qualified electrician.

Disconnect device

You must install this printer near a power outlet that is easily accessible. In case of an emergency, you must disconnect the power cord from the power outlet to shut off the power completely.

Caution for LAN connection (For model HL-5250DN)

Connect this product to a LAN connection that is not subjected to overvoltages.

IT power system (For Norway only)

This product is also designed for an IT power system with phase-to-phase voltage 230V.

Wiring information (for UK)

Important

If you need to replace the plug fuse, fit a fuse that is approved by ASTA to BS1362 with the same rating as the original fuse.

Always replace the fuse cover. Never use a plug that does not have a cover.

Warning - This printer must be earthed.

The wires in the mains lead are coloured in line with the following code:

- **Green and Yellow: Earth**
- **Blue: Neutral**
- **Brown: Live**

If in any doubt, call a qualified electrician.

EC Declaration of Conformity

brother

EC Declaration of Conformity

Manufacturer
Brother Industries Ltd.,
15-1, Naeshiro-cho, Mizuho-ku,
Nagoya 467-8561, Japan

Plant
Brother Corporation (Asia) Ltd.,
Brother Buji Nan Ling Factory,
Gold Garden Ind., Nan Ling Village,
Buji, Rong Gang, Shenzhen, China

Herewith declare that:

Products description : **Laser Printer**
Product Name : **HL-5240, HL-5250DN**
Model Number : **HL-52**

are in conformity with provisions of the Directives applied : Low Voltage Directive 73/23/EEC (as amended by 93/68/EEC) and the Electromagnetic Compatibility Directive 89/336/EEC (as amended by 91/263/EEC and 92/31/EEC and 93/68/EEC).

Standards applied :
Harmonized : Safety : EN60950-1:2001

EMC : EN55022: 1998 +A1: 2000 +A2: 2003 Class B
EN55024: 1998 +A1: 2001 +A2: 2003
EN61000-3-2: 2000
EN61000-3-3: 1995 +A1: 2001

Year in which CE marking was first affixed : 2005

Issued by : Brother Industries, Ltd.

Date : 10th May, 2005

Place : Nagoya, Japan

Signature :

Takashi Maeda

Takashi Maeda
Manager
Quality Management Group
Quality Management Dept.
Information & Document Company

C Appendix (For USA and Canada)

Brother Numbers

IMPORTANT

For technical and operational help, you must call the country where you bought the printer. Calls must be made ***from within*** that country.

Register your product

By registering your product with Brother International Corporation, you will be recorded as the original owner of the product.

Your registration with Brother:

- may serve as a confirmation of the purchase date of your product should you lose your receipt;
- may support an insurance claim by you in the event of product loss covered by insurance; and,
- will help us notify you of enhancements to your product and special offers.

Please complete the Brother Warranty Registration or, for your convenience and most efficient way to register your new product, register on-line at

http://www.brother.com/registration/

FAQs (Frequently asked questions)

The Brother Solutions Center is our one-stop resource for all your printer needs. You can download the latest software and utilities and read FAQs and troubleshooting tips to learn how to get the most from your Brother product.

http://solutions.brother.com

You can check here for Brother driver updates.

Customer Service

In USA:	1-800-276-7746
In Canada:	1-877-BROTHER

If you have comments or suggestions, please write us at:

In USA:	Printer Customer Support Brother International Corporation 15 Musick Irvine, CA 92618
In Canada:	Brother International Corporation (Canada), Ltd. - Marketing Dept. 1, rue Hotel de Ville Dollard-des-Ormeaux, PQ, Canada H9B 3H6

Service center locator (USA only)

For the location of a Brother authorized service center, call 1-800-284-4357.

Service center locations (Canada only)

For the location of a Brother authorized service center, call 1-877-BROTHER

Internet Addresses

Brother Global Web Site: http://www.brother.com

For Frequently Asked Questions (FAQs), Product Support and Technical Questions, and Driver Updates and Utilities: http://solutions.brother.com

(In USA Only) For Brother Accessories & Supplies: http://www.brothermall.com

Ordering supplies

For best quality results use only genuine Brother supplies, which are available at most Brother retailers. If you cannot find the supplies you need and you have a Visa, MasterCard, Discover, or American Express credit card, you can order supplies directly from Brother. (In the USA, you can visit us online for a complete selection of the Brother accessories and supplies that are available for purchase.)

In USA:	1-888-879-3232 (voice) 1-800-947-1445 (fax) http://www.brothermall.com
In Canada:	1-877-BROTHER (voice)

Description	Item
Toner Cartridge	TN-550 (Standard, prints approx. 3, 500 pages) TN-580 (High Yield, prints approx. 7,000 pages)
Drum Unit	DR-520

Important information: Regulations

Federal Communications Commission (FCC) Declaration of Conformity (For USA)

Responsible Party:	Brother International Corporation 100 Somerset Corporate Boulevard P.O. Box 6911 Bridgewater, NJ 08807-0911 USA Telephone: (908) 704-1700

declares, that the products

Product name:	Laser Printer HL-5240 and HL-5250DN
Model number:	HL-52
Product option:	Lower Tray Unit LT-5300

complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Important

A shielded interface cable should be used to ensure compliance with the limits for a Class B digital device.

Changes or modifications not expressly approved by Brother Industries, Ltd. could void the user’s authority to operate the equipment.

Industry Canada Compliance Statement (For Canada)

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

International ENERGY STAR® Compliance Statement

The purpose of the International ENERGY STAR® Program is to promote the development and popularization of energy-efficient office equipment.

As an ENERGY STAR® Partner, Brother Industries, Ltd. has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Laser Notices

Laser Safety (110 to 120 volt model only)

This printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation.

Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape from the machine during any phase of user operation.

FDA Regulations (110 to 120 volt model only)

The U.S. Food and Drug Administration (FDA) has implemented regulations for laser products manufactured on and after August 2, 1976. Compliance is mandatory for products marketed in the United States. One of the following labels on the back of the printer indicates compliance with the FDA regulations and must be attached to laser products marketed in the United States.

MANUFACTURED:

Brother Industries, Ltd.,

15-1 Naeshiro-cho Mizuho-ku Nagoya, 467-8561 Japan

This product complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No.50, dated July 26, 2001.

MANUFACTURED:

Brother Corporation (Asia) Ltd. Brother Buji Nan Ling Factory

Gold Garden Ind., Nan Ling Village, Buji, Rong Gang, Shenzhen, CHINA

This product complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No.50, dated July 26, 2001.

Caution

Use of controls, adjustments or performance of procedures other than those specified in this User's Guide may result in hazardous radiation exposure.

Internal laser radiation

Maximum radiation power:	5 mW
Wave length:	770 - 810 nm
Laser class:	Class 3B

IMPORTANT - For Your Safety

To ensure safe operation, the supplied three-pin plug must be inserted only into a standard three-pin power outlet that is properly grounded through the standard electrical wiring.

Extension cords used with this printer must be three-pin plug type and correctly wired to provide proper grounding. Incorrectly wired extension cords may cause personal injury and equipment damage.

The fact that the equipment operates satisfactorily does not imply that the power is grounded and that the installation is completely safe. For your safety, if in any doubt about the effective grounding of the power, call a qualified electrician.

This product should be connected to an AC power source within the range indicated on the rating label. DO NOT connect it to a DC power source. If you are not sure, contact a qualified electrician.

Disconnect device

You must install this printer near a power outlet that is easily accessible. In case of an emergency, you must disconnect the AC power cord from the AC power outlet to shut off the power completely.

Caution for LAN connection (For model HL-5250DN)

Connect this product to a LAN connection that is not subjected to overvoltages.

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